

# E-MANUAL

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Model\_\_\_\_\_ Serial No.\_\_\_\_

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Licence

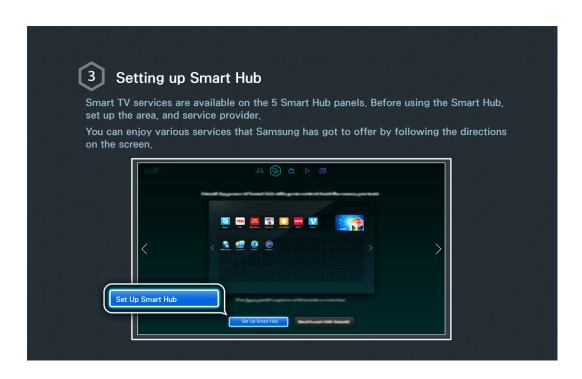
Glossary

## Using the Smart TV

Availability depends on the specific model and area.









For more information, refer to "Smart Hub".

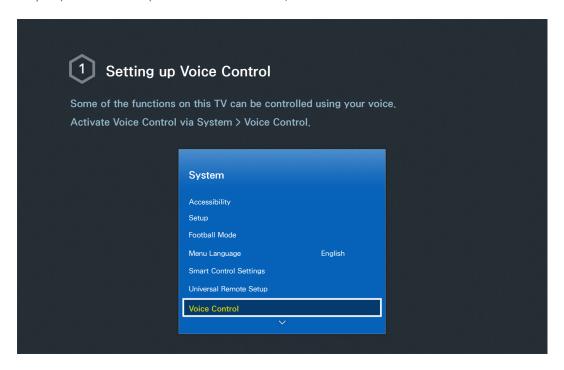


Move the focus to an app and press and hold the touchpad. When a pop-up menu appears, select Download so that you can enjoy the application.



## **Using Voice Control**

Availability depends on the specific model and area.

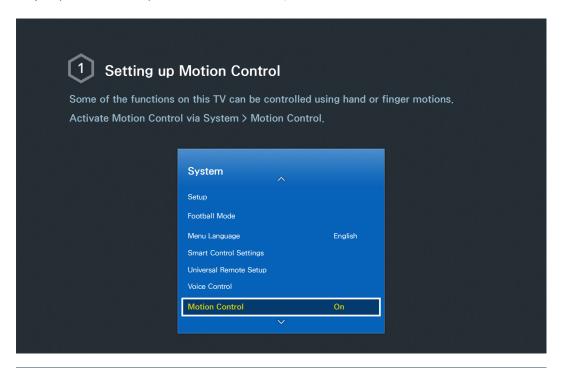


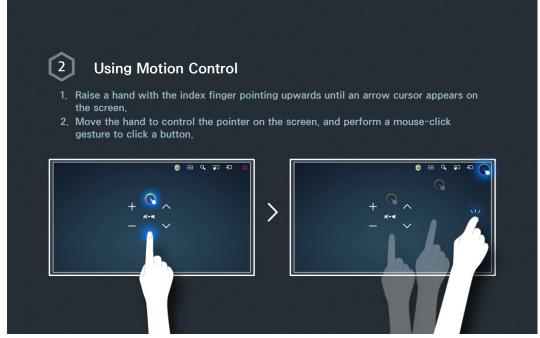


For more information, refer to "TV Control using your Voice".

## **Using Motion Control**

Availability depends on the specific model and area.





- A TV camera (sold separately) needs to be connected in order to use Motion Control,
- For more information, refer to "TV Control using Motions".

## **Using the Samsung Smart Control**

Availability depends on the specific model and area.









## Entering option menu using Samsung Smart Control

Samsung Smart Controls may vary depending on the specific model.



After Pressing and holding the MENU button, Menu appears automatically. After pressing and holding the **D** button, Info appears automatically.



After Pressing and holding the B button, Menu appears automatically. After Pressing and holding the 

button, Menu appears automatically.

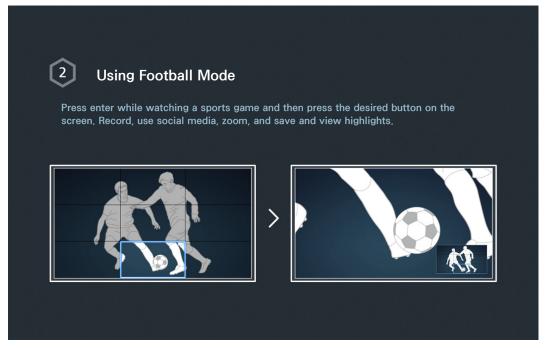


For more information, refer to "Using Samsung Smart Control".

## Using the Football Mode

Availability depends on the specific model and area.



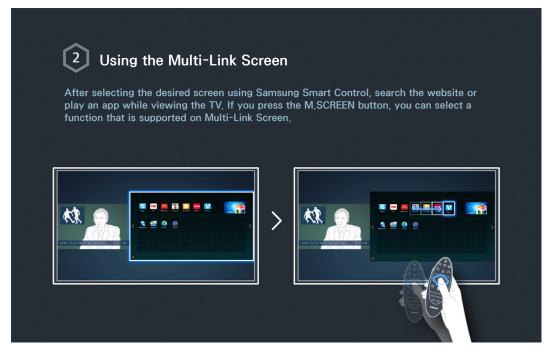


For more information, refer to "Adding Realism to Sports".

## Using the Multi-Link Screen

Availability depends on the specific model and area.

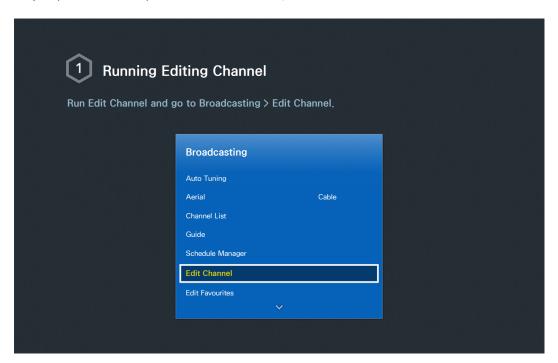


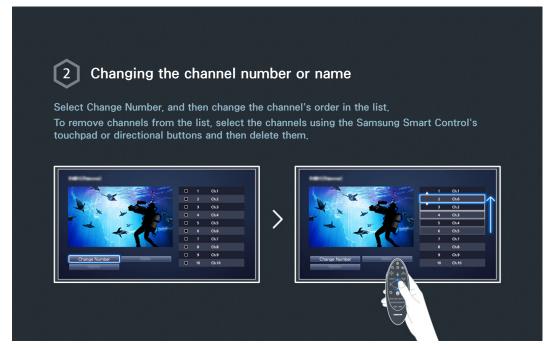


For more information, refer to "Multiple Functions on a Single Screen".

## **Editing channels**

Availability depends on the specific model and area.





# 3 Sorting the channel list

- 1. Select a digital channel in the list and then select Options > Sorting.
- 2. Select a desired method for sorting the list.





## **Connecting - Aerial**

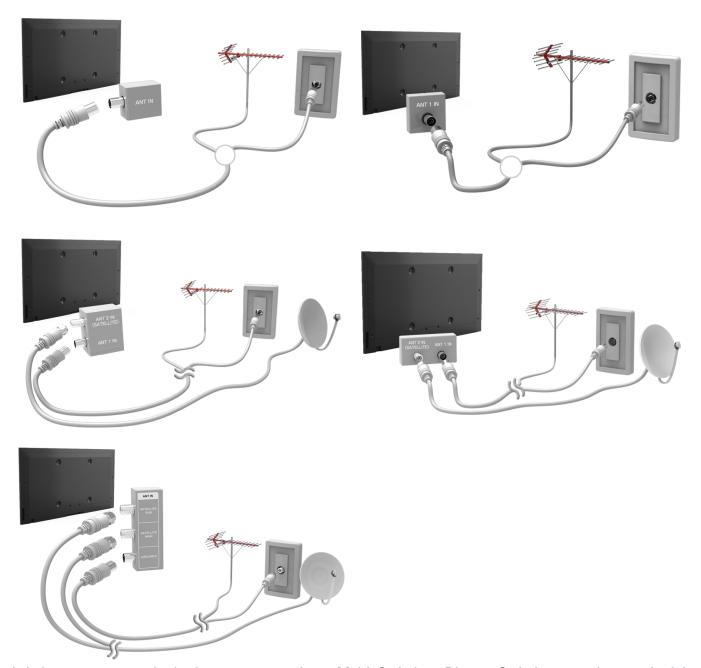
Availability depends on the specific model and area.

Before connecting any external devices and cables to the TV, first verify the model number. A sticker containing the model number is attached to the back of the TV. The connection method varies depending on the model,

An aerial must be connected to the TV in order to receive broadcast signals.

An aerial connection is not necessary when a cable box or satellite receiver is used.

Connect the correct aerial cable according to your viewing environment to the TV's aerial connector, as shown in the diagram.



It is best to connect the both connectors using a Multi-Switch or Diseqc. Switch, etc and to set **Aerial** Connection Type to Dual.

Availability depends on the specific model and area.

## **Video Device Connection**

Availability depends on the specific model and area,

Your TV has a variety of connectors for video input from external devices such as cable boxes, satellite receivers, Blu-ray players, DVD players, camcorders, and gaming consoles. Below is a list of featured connectors shown in descending order of picture quality.

- HDMI
- Component
- External Input

Connect a video device to the TV via an HDMI connector for the best picture quality. If the device does not have an HDMI connector, try a component connector to get the next best picture quality.

- The number of connectors and their names and locations may vary depending on the model.
- Refer to the external device's operating manual when connecting it to the TV. The number of external device connectors and their names and locations may vary depending on the manufacturer.

## Connecting - HDMI

Before connecting any external device or cable to the TV, first verify the TV's model number, A sticker containing the model number is attached to the back of the TV. The connection method varies depending on the model.

The following types of HDMI cables are recommended:

- High-Speed HDMI Cable
- High-Speed HDMI Cable with Ethernet

### HDMI cables have certain requirements:

- Use an HDMI cable with a thickness of 14 mm or less.
- Using a non-certified HDMI cable may result in a blank screen or a connection error,
- Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications.
- This TV does not support HDMI Ethernet Channel, Ethernet is a LAN (Local Area Network) built with coaxial cables standardised by the IEEE.

Refer to the diagram and connect the HDMI cable to the video device's HDMI output connector and the TV's HDMI input connector.

The number of connectors and their names and locations may vary depending on the model.



## **Connecting - Component**

Before connecting any external devices and cables to the TV, first verify the model number of the TV you purchased. A sticker containing the model number is attached to the back of the TV. The connection method varies depending on the model.

Refer to the diagram and connect the Component cable to the TV's component input connectors and the device's component output connectors.

Make sure the cable colours match the connector colours.



## **Connecting - External Input**

Before connecting any external device or cable to the TV, first verify the TV's model number. A sticker containing the model number is attached to the back of the TV. The connection method varies depending on the model.

Refer to the diagram and connect the AV cable to the TV's AV input connectors and the device's AV output connectors.

If you are using the TV's AV input connectors, connect the video cable to the Y connector. Some models feature a video connector as well. In this case, connect the cable to the video connector.



## **Connecting - SCART**

Availability depends on the specific model and area.

Before connecting any external devices and cables to the TV, first verify the model number of the TV you purchased. A sticker containing the model number is attached to the back of the TV. The connection method varies depending on the model.

Connect the TV's SCART input connector to the device's SCART output connector using a SCART cable. An extra audio connection is not needed because SCART also carries audio.

SCART can only carry standard-definition video.



## TV Audio through the External Speakers

Your TV has a variety of connectors for audio input from devices such as Blu-ray players and DVD players and for audio output to such devices as amplifiers. The connectors are listed below.

- ARC (Audio Return Channel)
- Digital Audio (Optical)

There are several issues to bear in mind when using audio input:

- For better audio quality, it is a good idea to use an AV receiver,
- The number of connectors and their names and locations may vary depending on the model,
- Refer to the external device's operating manual when connecting it to the TV. The number of external device connectors and their names and locations may vary depending on the manufacturer,

### Connecting - HDMI (ARC)

Some models may not support ARC.

Before connecting any external devices and cables to the TV, first verify the model number of the TV you purchased. A sticker showing the model number is attached to the back of the TV. The connection method varies depending on the model.

ARC (Audio Return Channel) enables digital sound output using just an HDMI cable, However, ARC is only available through the HDMI (ARC) port and only when the TV is connected to an ARC-enabled AV receiver,

The number of connectors and their names and locations may vary depending on the model.

Connect an HDMI cable to the TV's HDMI (ARC) connector and the device's HDMI output connector,



## Connecting - Digital Audio (Optical)

Availability depends on the specific model and area.

Before connecting any external device or cable to the TV, first verify the TV's model number. A sticker showing the model number is attached to the back of the TV. The connection method varies depending on the model.

Connecting an AV receiver to the TV via a digital audio (optical) connector lets you listen to digital audio.

Connecting a device using an optical cable does not automatically turn off the TV speakers. To turn off the TV's speakers, set TV Sound Output (Sound > Speaker Settings > TV Sound Output) to something other than TV Speaker.

Adjust the audio device's volume using its remote control.

- An unusual noise coming from the audio device while you are using it may indicate a problem with the audio device itself. If this occurs, ask for assistance from the audio device manufacturer.
- Digital audio is only available with 5,1-channel broadcasts,

Refer to the diagram and connect the optical cable to the TV's digital audio output connector and the device's digital audio input connector.



## Connecting - Headphone

Availability depends on the specific model and area.

Before connecting any external device or cable to the TV, first verify the TV's model number. A sticker containing the model number is attached to the back of the TV. The connection method varies depending on the model.

Refer to the diagram and connect the headphones to the headphone output connector. Only use headphones with a 3-conductor TRS type jack. The headphone volume and the TV volume are adjusted independently of each other. While the headphone is connected, the TV speakers are muted and certain **Sound** options are deactivated,



The connectors may not be supported depending on the model.



## Connecting - Audio Output

Availability depends on the specific model and area.

Before connecting any external device or cable to the TV, first verify the TV's model number. A sticker containing the model number is attached to the back of the TV. The connection method varies depending on the model.

0

The connectors names and locations may vary depending on the model.

Refer to the diagram and connect the audio cable to the TV's audio output connector and the device's audio input connector.



## Connecting to a Computer

You can directly connect a computer to the TV or to the network to view the computer screen or content on the TV. Connect the computer to the TV as follows.

### • Connecting via HDMI Port

You can connect the computer to the TV using the HDMI cable to display the computer screen on the TV.

### Connecting with the HDMI (DVI) Port

You can connect a computer to the TV by connecting the computer's DVI port to the TV's HDMI port with the DVI to HDMI cable to display the computer screen on the TV.

### Connecting via Samsung Link

Quickly access the photo, video and music files saved on a computer on which Samsung Link software is installed, even if you do not connect the TV directly to the computer.

### • Connecting via Home Network (DLNA)

Quickly access the photo, video and music files saved on a computer by connecting the TV and the computer to the same router or AP.

### **Connecting - HDMI Port**

Before connecting any external device or cable to the TV, first verify the TV's model number. A sticker showing the model number is attached to the back of the TV. The connection method varies depending on the model.

For HDMI connection, one of the following HDMI cable types is recommended:

- High-Speed HDMI Cable
- High-Speed HDMI Cable with Ethernet
- Use an HDMI cable with a thickness of 14 mm or less. Using a non-certified HDMI cable may result in a blank screen or a connection error,
- Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications.
- This TV does not support HDMI Ethernet Channel, Ethernet is a LAN (Local Area Network) built on coaxial cables standardised by the IEEE,
- Some computers do not support HDMI interface, depending on its graphics adapter specifications. In this case, use a DVI-to-HDMI cable to connect the computer to the TV.

Refer to the diagram and connect the HDMI cable to the external video device's HDMI output connector and the TV's HDMI input connector,



## Connecting - HDMI (DVI) Port

If the graphics adapter of your computer does not support HDMI interface, connect the computer to the TV with the DVI (Digital Visual Interactive) to HDMI cable. However, DVI-to-HDMI connection is supported by the HDMI port for DVI only and does not support audio signal transmission. To listen to the computer sound, connect the external speaker to the computer's audio output connector.

1

For information on resolutions supported by the TV, refer to "Computer Connection Precautions".

Refer to the diagram and connect the DVI-to-HDMI cable to the TV's HDMI (DVI) port and the computer's DVI output port.



### Connecting - Samsung Link

Quickly access photo, video and music files saved on a computer with Samsung Link software installed. Also, use Samsung Link to play and view the content of a computer that has been registered to Samsung Link under your Samsung account, even if the computer and the TV are not connected to the same router or AP.

- 1. Visit the Samsung content and service portal (http://link.samsung.com) on a computer and sign into your Samsung account.
  - To install Samsung Link desktop software, you will need to first sign into your Samsung account. If you don't have a Samsung account, create one first.
- 2. Install Samsung Link desktop software. When the installation is complete, the computer will be registered to Samsung Link.
- Specify the folder you wish to link to the TV. You can view and play photo, video and music files contained in the specified folder on the TV screen.
  - For more information on using Samsung Link desktop software, refer to the software's Help section,

### Connecting - Home Network (DLNA)

Quickly access and view/play photo, video and music files from a computer on the TV screen.

- Connect the TV and the computer to the same router or AP. A home network will be configured once the two connections are established.
  - Home Network (DLNA) enables content-sharing between the TV, computers and mobile devices connected to the same wired or wireless router.
- From the computer, select [Control Panel] > [Network and Internet] > [Network and Sharing Centre] > [Change advanced sharing settings] and select [Choose media streaming options...] to activate media streaming.
- 3. From the list, set TV to [Allowed].
- 4. Launch Windows Media Player from the computer, select [Settings] > [Library Management] and then add the location where the photo, video and music files are saved to view/play the files on the TV screen.
  - It will be possible to view/play on the screen files moved to Windows Media Player's default folder,
  - As long as File Sharing is activated, unauthorised access may be allowed. Disable File Sharing if data access is not required.

## Connecting with a Mobile Device

Connect mobile device such as a smartphone or tablet to the TV directly or indirectly over a shared network and display the mobile device screen or content on the TV screen. Connect the mobile device to the TV as follows.

### Mobile Device Screen on TV (Screen Mirroring)

Wirelessly connect the TV to the mobile device with the mirroring function to view the mobile device's screen on the TV.

This option is available only with mobile devices that support mirroring.

### Connecting Mobile Devices without a Wireless Router (Wi-Fi Direct)

Wi-Fi Direct enables you to connect the TV to a mobile device without a router or AP. Quickly access and play photo, video and music files from a connected mobile device on the TV screen.

This option is available only with mobile devices that support Wi-Fi Direct.

### Connecting via Samsung Link

Samsung Link enables you to play photo, video and music files from a Samsung Link-enabled mobile device without having to manually connect the device to the TV.

### Connecting via Home Network (DLNA)

View/play on the TV photo, video and music files from a mobile device connected to the same router or AP as the TV.

### Connecting via Smart View 2,0

Install and run the Smart View 2.0 app on your mobile device, and connect it to the TV in the same network.

### Mobile Device Screen on TV (Screen Mirroring)

### Network > Screen Mirroring (Try Now)

Wirelessly connect a mirroring-enabled mobile device to the TV and play the video and audio files stored on the device on the TV. Mirroring refers to the function that plays the video and audio files located on a mobile device on a TV and on the mobile device simultaneously.

- To use the Screen Mirroring function, the mobile device must support a mirroring function such as AllShare Cast or Screen Mirroring. To check whether your mobile device supports the mirroring function, please visit the mobile device manufacturer's website.
- The video or audio may intermittently stop depending on network conditions.

### Connecting via a mobile device

- On the mobile device, run Screen Mirroring. The mobile device searches for available devices to connect to.
- 2. From the search result list, select TV. The TV displays a pop-up window.
- 3. In the pop-up window, select Allow to connect the mobile device.
  - All previously allowed mobile devices will automatically connect without needing approval,
  - If you select Deny, the device won't appear and can't be activated in this way, Navigate to **Network** > **Screen Mirroring** > **Device Manager** to allow the previously denied mobile device.

### Not searching for the TV on mobile devices...

- Navigate to Network > Screen Mirroring to run Screen Mirroring. Also, you can select Screen Mirroring on a list by pressing SOURCE.
- Run mirroring on the mobile device. Display a list while automatically searching for mobile devices.
- Select the TV and it connects automatically.
  - When the mobile devices cannot connect, try turning the TV off and on.

### Allow/Reject the connection via mobile devices

- This is only available for watching when mobile devices allow the connection,
- Navigate to Network > Screen Mirroring > Device Manager to activate Device Manager. This
  displays a list of required mobile devices connection.
- 2. You can allow access or deny connections with mobile devices.

# Connecting Mobile Devices without a Wireless Router (Wi-Fi Direct)

### Network > Wi-Fi Direct (Try Now)

Wi-Fi Direct lets you connect mobile devices directly to your TV using wireless technology. After connecting a device to the TV using Wi-Fi Direct, it will be possible to view/play video, photo, and music files from the device on the TV.

- The mobile device must support Wi-Fi Direct, Make sure the mobile device you intend to use supports Wi-Fi Direct.
- Enable Wi-Fi Direct on the mobile device and then launch Wi-Fi Direct. The TV automatically scans for and displays a list of available devices. The TV's name also appears on the mobile device.
- 2. Select the device from the list to initiate a connection. If a connection request is made by the TV, a permission message appears on the mobile device and vice versa.
- 3. Allow the connection, This completes the connection process.

## Connecting - Samsung Link

Samsung Link enables you to view/play photo, video and music files from a Samsung Link-enabled mobile device with ease. Also use Samsung Link to play and view the content of a mobile device that has been registered to Samsung Link under your Samsung account, even if the mobile device and the TV are not connected to the same router or AP.

- 1. Run the Samsung Link app on the mobile device and then sign in with your Samsung account.
  - To use Samsung Link, you have to sign in with a Samsung account, If you don't have a Samsung account, create one first.
- 2. Quickly access and play photo, video and music files from the mobile device running Samsung Link app under your Samsung account.
  - For more information on using the Samsung Link app, refer to the Help section of the manual,

### Connecting - Home Network (DLNA)

View/play photo, video and music files from a mobile device on the TV.

- 1. Connect both the TV and the mobile device to the same router or AP. A home network will be configured once the connections are established.
  - Home Network (DLNA) enables content-sharing between the TV, computers and mobile devices connected to the same wired or wireless router,
- 2. Enable File Sharing on the mobile device. The mobile device's shared content can be viewed/played on the TV.
  - As long as File Sharing is activated, unauthorised access may be allowed. Disable File Sharing if data access is not required.

### Connecting via Smart View 2.0

By installing and running the Smart View 2.0 app on the mobile device, you can view the device screen on the TV, or play the device's multimedia content (videos, photos, and music) on the TV.

Go to Google Play, and search for and install Smart View 2.0 on your mobile device. Smart View 2.0 is a cross-platform multi-screen app that enables you to load the TV screen on a mobile device, share multimedia contents between two devices, and control the TV remotely. For more information, refer to the Smart View 2.0 manual.

### Name of TV on Network

### Network > Device Name (Try Now)

Choose or enter a TV name to be displayed on the network.

- 1. Select Device Name from the Network menu, A list will appear,
- Choose a name from the list. Alternatively, select User Input to enter a name manually. You can view the specified TV name on the network.

# **Input Signal Selection**

You can select a connected external device using the SOURCE button.

For example, to switch to a gaming console connected to the second HDMI connector, press SOURCE. From the Source list, select HDMI2 to change the input signal to HDMI mode. Connector names may vary depending on the model.

The following options are available in the Source screen:

TOOLS Button

Select a port connected to an external device, and press and hold the Enter button. The following functions are available:

- Available options for each connector may vary.
- Edit Name: Rename devices connected to the TV for easier identification of external sources. For example, you can designate a computer connected to the TV via an HDMI-DVI cable as DVI PC. Alternatively, simply designate a computer connected to the TV via an HDMI cable as PC. You can also designate an AV device connected to the TV via an HDMI-DVI cable as DVI Devices.
- Information: View detailed information about the connected devices.
- Anynet+ (HDMI-CEC): Displays a list of Anynet+ (HDMI-CEC)-compliant devices that are connected to the TV.
  - This option is only available with Anynet+ (HDMI-CEC) set to On.
- Device Format: Formats USB recording devices connected to the TV.
  - This option is only available when a USB device has been selected.
- Disconnect USB Device: Used to safely remove a USB device connected to the TV.
  - This option is only available when a USB device has been selected.

#### Universal remote setup

Select Universal remote setup on the screen to configure the universal remote function. By configuring a universal remote control, you can control cable boxes, Blu-ray players, home theatres, and other external devices using a single remote control.

Availability depends on the specific model and area.

# Inserting Batteries into Samsung Smart Control

Availability depends on the specific model and area.

To use Samsung Smart Control, first refer to the figure below and insert batteries into the unit.



- 1. Gently pull on the battery cover's notch and then remove the cover completely once it comes loose.
- 2. Insert 2 AA alkaline batteries, making sure to align the positive and negative polarities correctly.
- 3. Place the battery cover on the remote control and insert the top part of the cover into the remote control.
- 4. Press the catches on both sides of the battery cover in the order shown so that the cover is completely attached to the remote control.

### When you see this alarm icon on the screen...

Following alarm icon indicates Samsung Smart Control's batteries are low. If the alarm icon pops up, replace the batteries. Samsung recommends using alkaline batteries for a longer operating life.



<Low Battery Alarm Icon>

# **Pairing Samsung Smart Control**

Availability depends on the specific model and area.

To control the TV with Samsung Smart Control, you need to pair Samsung Smart Control to the TV via Bluetooth, Pair Samsung Smart Control to the TV.

Samsung Smart Control can only be paired to a single TV.

Point Samsung Smart Control at the remote control sensor of the TV and press the TV button to turn the TV on.

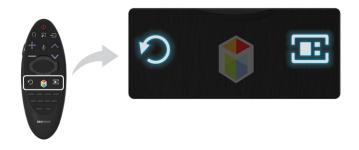
Remote control receiver's location may vary depending on the model.

# **Reconnecting Samsung Smart Control**

If the Samsung Smart Control stops operating or works abnormally, replace the batteries as this may be due to insufficient battery power.

If the problem persists, the Samsung Smart Control restore pairing with the TV.

- 1. Press both the RETURN button and the Guide button simultaneously for more than 3 seconds.
  - You must place the Samsung Smart Control approximately 30cm ~ 40cm away from the TV and ensure it is pointing towards the remote control receiver.
- 2. Connection image is appeared on the screen. And then, Samsung Smart Control is connecting to TV automatically.



# **Using Samsung Smart Control**

Availability depends on the specific model and area.

Samsung Smart Control makes it even easier and more convenient to use the TV. Pressing the **KEYPAD** button displays a virtual remote control that allows you to easily enter digits, control content, and activate functions on the screen.

We recommend using Samsung Smart Control at a distance of less than 6m. A usable distance may differ depending on the wireless environmental conditions.

### **Button Functions**

Refer to the detailed information about the provided remote control.

Samsung Smart Controls may vary depending on the specific model.





Colours and shape may vary depending on the model.

Button	Description
TV	Turns the TV on/off.
SEARCH	Press this button to use the search window.
KEYPAD	With the virtual remote control on the screen, you can easily enter digits, control content, and use functions.
SOURCE	Changes the source.
+	Changes the volume.
VOICE	Starts voice recognition. When the microphone icon appears on the screen, say a voice command into the microphone. Say "Help" to learn about basic usage and voice commands.  Say a voice command 10cm to 15cm from the microphone and at an appropriate volume.
☑ (Mute) / AD	Turns the sound on/off.
∧ P ∨	Changes the channel.
^, <b>∨</b> , <b>⟨</b> , <b>&gt;</b>	Moves the pointer or focus.
Touchpad	Place a finger on the touch pad and move the Samsung Smart Control. The pointer on the screen moves in the direction and as much as the Samsung Smart Control is moved. Press the touchpad to run the focused item.
≪, ▶, Ⅱ, »	Controls for when viewing/playing a video, photo or music file or watching a recorded programme. You can also use the buttons to control content from an external device.
A, B, C, D	Use these colour buttons to access additional options specific to the feature in use.
RETURN / EXIT	Returns to the previous menu. Additionally, when you press this button while watching TV, you can return to the previous channel.
SMART HUB	Launches the Home Screen. From the Home Screen, you can search through favourite apps, channels or sources and quickly access previously run or frequently used functions. Also, when you move to the panel screen, you can use various service provided each service panel
GUIDE / CH,LIST	Displays the digital channel broadcasting schedule.
INFO	Shows the information about the current digital broadcast programme or content.
<b>©</b>	Enable Football Mode for an optimal sports viewing experience.
MENU	Displays a menu on the screen.  Availability depends on the specific Samsung Smart Control.
M.SCREEN	You can split the TV screen and use various functions such as watching TV, surfing the web, watching video, and so on.  Availability depends on the specific Samsung Smart Control.

### **Additional Functions**

Press and hold the following buttons for 1 second to use additional functions.

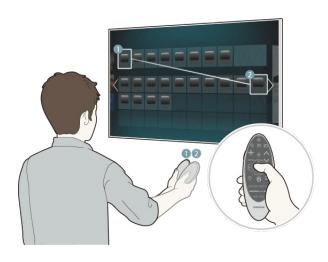
Button	Description
GUIDE / CH.LIST	Press and hold to launch the CH,LIST.
RETURN / EXIT	Press and hold this button to exit all currently running applications
☑ / AD	Press and hold this button to bring up the Accessibility Shortcuts panel. Select the options to turn them on or off.
В	Displays a menu on the screen.  Availability depends on the specific Samsung Smart Control.
C	Press and hold to record the broadcast.  Availability depends on the specific model and area.
D	Press and hold to view information about the current digital channel or media file.

# Using the TV by Moving the Samsung Smart Control

The Samsung Smart Control has a motion sensor (gyro sensor) that allows you to easily control the TV by holding and moving the Samsung Smart Control.

After placing a finger on the touchpad, a pointer appears on the screen. Hold and move the Samsung Smart Control. The pointer moves the same way the Samsung Smart Control is moved. It's also possible to scroll up and down on scrollable screens.

- If you remove the finger from touchpad, the screen pointer disappears.
- If the **Voice Guide** is set to On, the Samsung Smart Control's motion sensor(gyro sensor) does not work. To use the Samsung Smart Control's motion sensor, set the **Voice Guide** to **Off**.



# Using the TV with the Touchpad



Navigate to the **Support** menu and select the **Smart Control Tutorial** option to learn how to use the touchpad, following the on screen instructions.

### Moving the Focus/Pointer



Press the directional buttons (up, down, left, and right) to move the pointer or focus in the direction.

# Menu Access & Item Selection



Press the touchpad. This lets you access a TV menu or select an item.

### Displaying the Context-sensitive Menu on Smart Hub



Press and hold on the touch pad from the Smart Hub screen. The Options menu available to the selected item appears.



The Options menu depends on the context,

### Moving to the Smart Hub panel



On the Smart Hub screen, drag left or right on the touchpad. This will move the Smart hub panels left or right.

### Scrolling on the Web Browser





<Scrolling left/right>

Drag up/down or left/right on the touchpad in the web browser screen. This scrolls through the web screen.

# Displaying the Remote Control on the Screen (virtual remote control)

Press the **KEYPAD** button to display the virtual remote control on the screen. You can easily enter digits, control content, and use TV buttons with the virtual remote control.

The virtual remote control buttons may vary depending on the TV's current status.



Button	Description
1 2 3 4 5 6 7 8 9 TW 0 F	<ul> <li>You can directly enter the channel number to switch to that channel. Select Pre-CH to return to the previous channel.</li> <li>TTX/MIX: Alternately selects Teletext ON Double, Mix or OFF.</li> </ul>
	Controls the item when you are playing a video, photo or music file or watching a recorded programme. You can also use the buttons to control the content on an external device.
TOOLS	Use frequently used functions while watching TV. In addition, you can use additional functions that may vary depending on the currently running function.
INFO	Shows the information about the current digital broadcast programme or content.
MENU	Displays the menu on the screen.
Speaker Settings	Select the speakers which you want to use to listen to the TV's sound. To set this option, external speakers must be connected to the TV.
PIP	Display the video from an external device or computer on the main screen and the TV as a picture-in-picture.
3D	Turn the 3D effect on or off.
Schedule Manager	Move to the Schedule Manager screen.
AD/SUBT	Displays the Accessibility Shortcuts. Select the options to turn them on or off.
P,SIZE	Change the picture size.

Button	Description
DUAL	When you press the Dual I II button the first time, the current dual mode is displayed on the screen.  Press the Dual I II button again to change the dual mode.
Web Browser	Launch the Web Browser.
e-Manual	Launch the e-Manual.
Sign In	Log in or out of 0your Samsung account.
	<ul> <li>Move to the right / Move to the left: You can move the virtual remote control on the screen.</li> <li>Large size / Standard size: You can resize the virtual remote control on the screen.</li> <li>⚠ Alternatively, navigate to the System &gt; Smart Control Settings menu and select and set the Onscreen Remote Size option.</li> <li>Touch Sensitivity: You can change the touchpad sensitivity.</li> <li>⚠ Alternatively, navigate to the System &gt; Smart Control Settings menu and select and set the Touch Sensitivity option.</li> <li>Motion Sensitivity: Put a finger on the touchpad and move it to adjust the speed of the pointer on the screen.</li> <li>⚠ Navigate to System &gt; Smart Control Settings, and select Motion Sensitivity to enable this option.</li> <li>Universal Remote Setup: Moves to the Universal Remote Setup screen.</li> <li>Cancel: Close the pop-up menu.</li> </ul>

# Controlling External Devices with the TV Remote (Universal Remote Setup)

### System > Universal Remote Setup (Try Now)

Availability depends on the specific model and area.

The universal remote control feature lets you control cable boxes, Blu-ray players, home theatres, and other external devices connected to the TV using the TV's remote control. In order to use the TV's remote control as a universal remote, you must first connect the IR extender cable (included).

- You can also use the Anynet+ (HDMI-CEC) function to operate some external Samsung devices with your TV's remote control without any additional setup, Refer to the "Using Anynet+ (HDMI-CEC)" section for more information.
- Certain external devices connected to the TV may not support the universal remote feature.

# Setting Up the Universal Remote Control

Before connecting any external devices and cables to the TV, first verify the model number of the purchased TV. A sticker containing the model number is attached to the back of the TV. The connection method varies depending on the model.

To use the TV remote as a universal remote, connect the IR extender cable (included) to the TV and position it within 10 cm of the external device's remote control receiver.

- The colour and design of the IR extender cable may vary depending on the model.
- When you connect the cable, you have to match the cable's colour and socket's colour,

Connect the IR extender cable to the TV's IR output connector as shown in the diagram and place the transmitter end within 10 cm of the external device's receiver pointing in the direction of the remote receiver. However, there must be no obstacles between the IR extender cable and the external device. The presence of obstacles interferes with the transmission of the remote control signal.

When you use an external device registered with the Universal Remote Control on the Samsung Smart Control, you can use the external device without connecting an IR extender cable. However, if you want to use an external device using Motion Control or Voice Control, be sure to connect an IR extender cable.



# Controlling External Devices with the TV Remote

### **External Device Registration**

- 1. Turn on the external device to set up the universal remote function for, and bring up the **Source** screen.
- Select Universal remote setup from the top of the screen. This initiates the universal remote setup process.
- 3. Follow the on-screen instructions and register the external device.

### Using the TV Remote

Registering an external device to the TV remote also registers the connector through which the device is connected. Accordingly, simply selecting the external device using the SOURCE button makes it possible to control the device using the TV's remote.

#### **Universal Remote Features**

- 1. Press SOURCE to bring up the Source screen.
- Select Universal remote setup from the top of the screen. This initiates the universal remote setup process.
- 3. Select an external registered device on the Universal remote setup screen. The following options are available:

#### Use External Speakers

Listen to the audio from the external device through the connected home theater,

This is available only on the set-top box or Blu-ray player.

### Link Set-top Box

Listen to the audio from the set-top box through the home theater that is connected to the TV.

This is available only on the home theater system.

#### Link Blu-ray Player

Listen to the audio from the Blu-ray player through the home theater that is connected to the TV.

This is available only on the home theater system,

#### Source Setup

Change the TV's input source to your selected external device.

#### Sync with TV power

Configure the set-top box to turn off when the TV is turned off

This is available only on the set-top box.

#### Rename

Rename the registered external device (up to 15 characters long)

#### Delete

Remove the registered external device.

# Controlling the TV with a Keyboard

### System > Device Manager > Keyboard Settings (Try Now)

You can use a keyboard to control the TV.

Certain models do not support USB HID class keyboards.

# Connecting a Keyboard

### Connecting a USB Keyboard

Plug the keyboard cable into the TV's USB port, A connection message appears on the screen,

### Connecting a Bluetooth Keyboard

- Availability depends on the specific model and area.
- 1. Place the Bluetooth keyboard into the standby status.
  - Refer to the keyboard manual for information on putting the keyboard into the standby status,
- Select System > Device Manager > Keyboard Settings > Add Bluetooth Keyboard. The Add Bluetooth Keyboard screen will appear and automatically scan for available keyboards.
  - If your keyboard was not detected, position the keyboard close to the TV and then select **Refresh**. This initiates a scan for available keyboards again.
- Select the Bluetooth keyboard from the scan list and then select Pair and connect. A number appears on the screen.
- 4. Enter the number on the Bluetooth keyboard.
  - Select **Yes** to change the keyboard's options or **No** to leave them as they are.

# Using the Keyboard

Use the following remote features with the USB or Bluetooth keyboard connected to the TV.

- Arrow Keys (moving the focus), Windows Key (MENU Button), Menu List Key (TOOLS Button), Enter Key (Select/run item), ESC (RETURN Button), Number Keys (Number Buttons)
- F1 (▲), F2 (᠍), F3 (ⓒ), F4 (₺), F5 (ᇦ), F6 (SOURCE Button), F7 (CH.LIST Button), F8 (MUTE Button), F9/F10 (Volume Buttons), F11 / F12 (Channel Buttons)
- Page Up/Page Down: Scroll web browser pages up/down.
- Holding down the Enter key: On the Smart Hub screen, navigate to an item and hold down the
  Enter key to display the Options menu.
  - The Options menu depends on the context.

### Changing Keyboards (Try Now)

Availability depends on the specific model and area.

Select System > Device Manager > Keyboard Settings > Select Keyboard. Designate which keyboard to use.

Only one keyboard can be used at a time.

### Input Languages, Keyboard Type, and Switch Language Key (ry Now

Select System > Device Manager > Keyboard Settings > Keyboard Options. The following options are available:

Keyboard Language

If the keyboard supports multiple languages, choose which language you want to use from the list.

Keyboard type

Specify the type of language selected under Keyboard Language.

The Keyboard type list varies depending on which language was selected under Keyboard Language.

Switch Input Language

If the keyboard supports multiple languages, choose from the list which key to use to switch between languages.

# Controlling the TV with a Mouse

### System > Device Manager > Mouse Settings (Try Now

This TV can be operated with ease using a mouse instead of a remote control,

Certain models do not support USB HID class mice.

# Connecting a Mouse

### Connecting a USB Mouse

Plug the mouse cable into the TV's USB port. A connection message appears on the screen.

### Connecting a Bluetooth Mouse

- Availability depends on the specific model and area.
- 1. Place the Bluetooth mouse in standby status.
  - Refer to the mouse manual for information on putting the mouse in standby status.
- Select System > Device Manager > Mouse Settings > Add Bluetooth Mouse. The Add Bluetooth
   Mouse screen will appear and automatically scan for available mice.
- Select the Bluetooth mouse from the scanned list, and then select Pair and connect. This pairs
  the Bluetooth mouse with the TV.

# Using the Mouse

Once a USB or Bluetooth mouse is connected to the TV, a pointer will appear on the TV's screen. You can use this pointer to control the TV as you would a computer.

#### Selecting and Running an Item

Left-click on the mouse.

### Displaying the Volume, Mute, and Channel Buttons

Select the volume/channel icon on the screen while watching TV. Use the onscreen buttons to adjust the volume or switch the channel.

Select the volume/channel icon again to hide the buttons.

#### Showing Tools Buttons

Right-clicking shows the Tools buttons on the screen so that you can easily use the TV functions.

- The Tools buttons may vary depending on the function.
- Displaying the Context-sensitive Menu on Smart Hub

On the Smart Hub screen, navigate to an item, and hold down the left mouse button for 1 second. The Options menu available to the selected item appears.

The Options menu depends on the context.

#### Scrolling the TV Menu or Screen

Move the mouse wheel up or down, This scrolls the TV menu or screen up/down,

### Exiting the TV Menu or Feature

Click on the X button. This closes the menu.

The X button appears when a mouse is being used. Left-clicking once while using a feature displays the X button.

### Changing Mice (Try Now)

Select System > Device Manager > Mouse Settings > Select Mouse, Designate which mouse to use,

Only one mouse may be used at a time.

### Changing Mouse Buttons and Pointer Speed (Try Now)

Select System > Device Manager > Mouse Settings > Mouse Options. The following options are available:

#### Primary Button

Choose which (left or right) button to use to select and run items.

#### Pointer Speed

Adjust the movement speed of the pointer that appears on the screen.

# **Entering Text Using QWERTY**

A QWERTY keypad appears when you need to enter text (entering the network password, logging into your Samsung account, etc.), allowing you to enter text using your remote control.

### **Using Additional Functions**

Select on the QWERTY keyboard screen. The following options are available:

#### Recommend text

Enable/disable the Recommended Text feature. Enabling the Recommend text feature allows you to quickly enter text starting with the characters you typed in by displaying recommended words. To enter the word "Internet," for example, all you have to do is enter "In" and select the word "Internet" from the list of recommended words. The word is memorised so that you can enter the same text again more easily.

#### Reset recommended text data

Delete both the recommended words and the memorised words to clear the list,

#### Predict Next Letter

Enable/disable the Text Prediction feature. Enabling the Text Prediction feature eliminates the need to find and select individual character keys. To enter the word "Internet," for example, select "I". A predicted word will then appear next to the I key. Simply select the predicted word to enter "Internet".

This feature is limited to words that have previously been added to the dictionary.

#### Accented Character Preview

Enable/disable the Show Accented Letters feature. An accented letter is a letter such as Ë or Й with a diacritical mark above it. Enable the Show Accented Letters feature to enter these kinds of letters,

This is available only with a language that uses diacritical letters.

# **Establishing a Wired Internet Connection**

Connecting the TV to the Internet gives you access to online services and SMART features, and lets you update the TV's software quickly and easily through the Internet.

# Connecting a LAN Cable

Use a LAN cable.

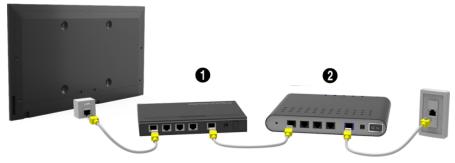
- The TV will not be able to connect to the Internet if the network speed is below 10Mbps.
- Use Cat 7 LAN cables to link your TV to the Internet Access Points.

There are three ways to connect the TV to the Internet. Refer to the diagrams and connect the LAN cable to the LAN connector on the back of the TV.

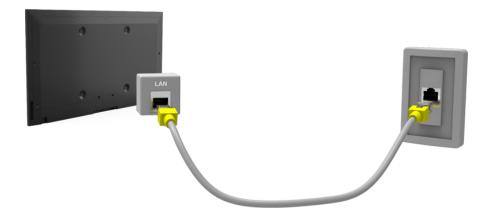
External Modem



• 1 IP Router + 2 External Modem



Wall-mounted LAN Outlet



# Connecting to a Wired Internet Network Automatically

### Network > Network Settings (Try Now)

Automatically connect to an available network.

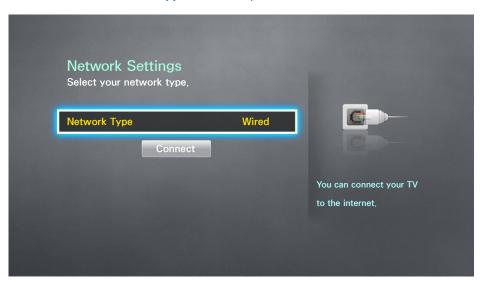
- 1. Set the **Network Type** to **Wired**, and then select **Connect**.
- 2. The TV attempts to connect to an available network. Once successful, you will see a confirmation message. Select **OK**. If the attempt fails, try again, or connect manually.

# Connecting to a Wired Internet Network Manually

#### **Network > Network Settings**

With networks that require a static IP address, you will need to enter the IP address, subnet mask, gateway, and DNS values manually to connect to the network. To get these values, contact your Internet Service Provider (ISP).

- Refer to the "Dynamic versus Static IP Addresses" section for more information on dynamic IP and static IP addresses.
- 1. Set the Network Type to Wired, and then select Connect,



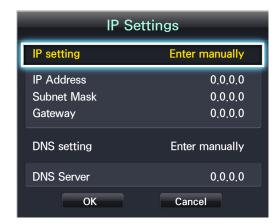
2. Select **Stop** when the TV attempts to connect to the network. Once the network connection has been interrupted, select **IP Settings**.



- 3. In the IP Settings screen, set the IP setting to Enter manually, enter the IP Address, Subnet Mask, Gateway, and DNS Server values, and then select OK.
  - Use one of the following methods to enter the numerical values.

Set the numbers using the ▲ and ▼ buttons.

**Using Samsung Smart Control**: Press **KEYPAD** button and enter the numbers directly. **Using the remote control**: Enter the numbers directly using numerical button.



- 4. The TV attempts to connect to the network again using the specified settings. A confirmation message appears once a connection is established. Select **OK**.
  - The network connection speed may differ depending on the DNS server settings.
  - For details on the DNS server settings, contact your Internet service provider (ISP).

# **Establishing a Wireless Internet Connection**

Connecting the TV to the Internet gives you access to online services and SMART features, and lets you update the TV's software quickly and easily through the Internet.



# Connecting to a Wireless Internet Network Automatically

### **Network > Network Settings**

Connect the TV to the Internet via a wireless router. Make sure you have the wireless router's SSID (name) and security key settings before attempting to connect. The security key can be found on the wireless router's configuration screen.

- On the Network Settings screen, set Network Type to Wireless. The TV automatically displays a list of available wireless networks.
- Select a network (SSID). If the network you want doesn't appear in the list, select Add Network, and enter the network's SSID manually.
- Enter the security key and select Done. If the selected network is not security-enabled, the TV attempts to connect right away.
- 4. A network connection will be attempted. Once a connection is established, the TV displays a confirmation message. Select **OK**. If the attempt fails, try again, or connect manually.

### Connecting to a Wireless Internet Network Manually

#### **Network > Network Settings**

With networks that require a static IP address, you will need to enter the IP address, subnet mask, gateway and DNS values manually to connect to the network. To get the IP address, subnet mask, gateway and DNS values, contact your Internet Service Provider (ISP).

- Refer to the "Dynamic versus Static IP Addresses" section for more information on dynamic IP and static IP addresses.
- 1. Setting the Network Type to Wireless automatically displays a list of available wireless networks.



- 2. Select the network (SSID) you want to connect to. If the wireless router doesn't appear in the list, select Add Network, and enter the network's SSID manually.
- 3. Enter the security key and select **OK**. If the selected network is not security-enabled, the TV attempts to connect right away.
- 4. Select **Stop** when the TV attempts to connect to the network. Once the network connection has been interrupted, select **IP Settings**.



- 5. In the IP Settings screen, set the IP setting to Enter manually, enter the IP Address, Subnet Mask, Gateway, and DNS Server values, and then select OK.
  - Use one of the following methods to enter the numerical values,

Set the numbers using the ▲ and ▼ buttons.

**Using Samsung Smart Control**: Press **KEYPAD** button and enter the numbers directly. **Using the remote control**: Enter the numbers directly using numerical button.



- 6. The TV attempts to connect to the network again using the specified settings. A confirmation message appears once a connection is established. Select **OK**.
  - The network connection speed may differ depending on the DNS server settings.
  - For details on the DNS server settings, contact the Internet service provider (ISP).

# Connecting to a Wireless Internet Network with WPS

### **Network > Network Settings**

With wireless routers that support WPS (Wi-Fi Protected Setup) or PBC (Push Button Configuration), it's possible to press a button on the router to connect the TV to the Internet.

- This functionality is not available with wireless routers that do not support WPS. Check to see if your wireless router supports WPS.
- 1. Setting the Network Type to Wireless automatically displays a list of available wireless networks.
- Select WPS(PBC) and then press the WPS or PBC button located on the wireless router within two minutes.
- The TV exchanges the network name (SSID) and security key automatically and then attempts to connect to the Internet. A confirmation message appears once a connection is established. Select OK.

# **Troubleshooting Internet Connectivity Issues**

If you are not able to connect the TV to the Internet, read the information below.

# **Troubleshooting Wired Internet Connectivity Issues**

### No network cable found (Try Now (Try Now

Make sure the network cable is plugged in. If it is connected, make sure the router is turned on. If it is on, try turning it off and on again,

### IP auto setting failed (Try Now

Do the following or configure the IP Settings manually.

- 1. Ensure that the DHCP server is enabled on the router and reset the router.
- 2. If this does not work, contact your Internet Service Provider for more information.

### Unable to connect to the network (Try Now

Do the following:

- 1. Check all IP Settings.
- 2. Ensure that the DHCP server is enabled on the router, Then, unplug the router and plug it back in.
- 3. If this does not work, contact your Internet Service Provider for more information.

### Connected to a local network, but not to the Internet (Try Now)

- 1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
- 2. Check the DNS values in the IP Settings.
- 3. If the problem persists, contact your Internet Service Provider.

### Network setup is complete, but unable to connect to the Internet (Try Now)

If the problem persists, contact your Internet Service Provider,

# **Troubleshooting Wireless Internet Connectivity Issues**

### Wireless network connection failed, Try Now Try Now

Selected wireless router not found, Go to Network Settings and select the correct router,

### Unable to connect to a wireless router (Try Now (Try Now)

Check the following:

- 1. Check if the router is turned on. If it is, turn it off and on again.
- 2. Enter the correct security key if required.

### IP auto setting failed (Try Now

Do the following or configure the IP Settings manually.

- 1. Make sure that the DHCP server is enabled on the router. Then, unplug the router and plug it back in.
- 2. Enter the correct security key if required,
- 3. If this does not work, contact your Internet Service Provider for more information.

### Unable to connect to the network (Try Now)

Do the following:

- 1. Check all IP Settings.
- 2. Enter the correct security key if required.
- 3. If this does not work, contact your Internet Service Provider for more information.

### Connected to a local network, but not to the Internet (Try Now)

- 1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
- 2. Check the DNS values in the IP Settings.
- 3. If the problem persists, contact your Internet Service Provider.

### Network setup is complete, but unable to connect to the Internet (Try Now)

If the problem persists, contact your Internet Service Provider,

# **Mobile Network**

Availability depends on the specific model and area.

While connecting to the mobile network, some functions might be unavailable.

Refer to the diagram and insert the Mobile Dongle (sold separately) into the USB port. The Mobile Dongle must be connected to the TV in order to connect to the mobile network. However, the Mobile Dongle is sold separately and is not available from Samsung.

- If you have any problems using online services, please contact your Internet service provider,
- Auto Ticker is not available when you set up mobile network.



# Supported Telecom and Model Name

Vodacom (Model No: K4605)

MTN (Model No: E3131S, E3251)

Safaricom (Model No: E303)

# **Checking the Internet Connection Status**

### Network > Network Status (Try Now)



Actual menu screen may differ depending on the TV model.

View the current network and Internet status.

# Multiple Functions on a Single Screen

Availability depends on the specific model and area.

This allows you to search the Web, use apps, and much more while watching TV.

- Before using Multi-Link Screen, make sure the TV is connected to the Internet, Using Multi-Link Screen requires an Internet connection.
- Before using Smart Hub with Multi-Link Screen, go to the On TV Settings (Smart Hub > On TV Settings > Set Up Service Provider) and finish configuring Smart Hub.

If the Multi-Link Screen launches while the TV did not configure the Smart Hub, a pop-up window appears. To use the Multi-Link Screen, you need to configure the Smart Hub first. On the pop-up window, select the **Set Up Smart Hub** to finish configuring the Smart Hub.

### Launching Multi-Link Screen

#### Picture > Open Multi-Link Screen

From the Picture menu, select Open Multi-Link Screen.

Press M,SCREEN on the Samsung Smart Control to launch Multi-Link Screen,

### **Using Multi-Link Screen**

- UHD and FHD contents and channels cannot be viewed simultaneously,
- Launching Smart Hub while using Multi-Link Screen automatically terminates Multi-Link Screen .
- Certain TV features and apps may not be supported by Multi-Link Screen . If this is the case, exit from Multi-Link Screen and then use the feature.

# Selecting a Feature

- Press the Samsung Smart Control's M.SCREEN button while Multi-Link Screen is running. The Options menu appears.
- 2. Select a feature from the Options menu. This initialises the selected feature.
  - Features supported by Multi-Link Screen vary depending on the country,

# Changing the Channel/Volume

- 1. Place the pointer or focus over the screen for which you want to change the channel or adjust the volume.
- Use the channel buttons to change the channel or the volume buttons to adjust the volume. This changes the selected screen's channel/volume.

# **Smart Hub**

### Smart Hub > Open Smart Hub (Try Now)

With Smart Hub, you can surf the web, download apps, and stay in touch with family and friends through social networking services. In addition, you can use photo, video, and music files stored on external storage devices.

- Some Smart Hub services are paid services. To purchase such a service, the service provider account or Samsung Apps TV account (Samsung account) is required.
- Make sure the TV is connected to the Internet. The TV must be connected to the Internet in order to use Smart Hub
- Some features of Smart Hub require an Internet connection and may not be available depending on the service provider, language, or region.
- To use Smart Hub, you must agree to the end user agreement and privacy policy. Otherwise, you will not be able to access the features and services related to them. You can view the entire content of the Terms & Policy by navigating to Smart Hub > Terms & Policy. If you don't wish to use Smart Hub anymore, you can withdraw the agreement.
- Smart Hub service outages can be caused by disruptions in your Internet service.

# **Testing Smart Hub connections**

#### Support > Self Diagnosis > Smart Hub Connection Test

Availability depends on the specific model and area.

If Smart Hub is not functioning, navigate to Support > Self Diagnosis > Smart Hub Connection Test. Diagnose the problem by checking the internet connection, your ISP, the Samsung server and the Samsung Apps panels.

After completing the test, if Smart Hub continues to have problems, contact your Internet Service Provider or a Samsung Contact Centre.

# **Opening the Home Screen**

Press while watching TV to open the Home Screen.

On the **Home Screen**, search through favourites apps, channels or sources and access previously run or frequently used functions.

You can configure the TV to automatically open the **Home Screen** when it turns on, Navigate to **Smart Hub** > **Home Screen Settings**, and set **Auto Start** to **On**.

### Setting your favourite item

- 1. Press while watching TV to open the Home Screen, and move to a desired item.
- 2. Press and hold the touchpad. The Options menu appears.
- 3. In the Options menu, select Add to Favourites to add the selected item to the favourite list, which will move top of the list.



### **Deleting browsing history**

- Press while watching TV to open the Home Screen, and select Clear All. You will be asked to confirm your selection.
- 2. Select OK on the screen. Your browsing history is deleted completely.
  - However, the Favorites list items will not be deleted.
  - You can also delete your browsing history by selecting Clear All in the Smart Hub > Home Screen Settings menu,

# Moving to the Panel Screen

Press the button to open the Home Screen, and select the Panel icon. On the Panel screen for each service panel, the following are available:

Usability depends on the specific model and local region.

#### • @ Games

Navigate to **Smart Hub** > **Games** to confirm the optimising game apps for Smart TV and detailed information on Smart hub. This makes it easier to download and play games. In addition, you can manage games that you have downloaded or purchased with your Samsung Account.

### 

You can enjoy variety of free and paid news, sports, weather, and gaming apps on the TV as you would on a smart phone or tablet.

#### 

You can view the current programmes on TV at a glance and view the Programme Recommendations by Channel and Programme Recommendations by Time from the programmes that will be broadcasted. In addition, you can watch recorded videos.

### 

You can directly purchase and view a movie or TV programme through the app provided by Smart Hub without connecting an external video source such as a DVD or Blu-ray player.

### • @ MULTIMEDIA

You can play back photo, video, and music files from an external storage device or watch recorded videos.

# **Using the Smart Hub Tutorial**

#### Support > Smart Hub Tutorial

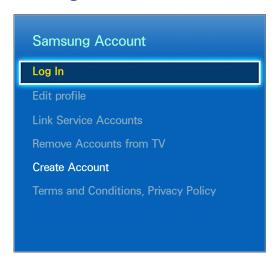
From the **Support** menu, select **Smart Hub Tutorial**. This will familiarise yourself with the basics of Smart Hub and panels.

# **Resetting Smart Hub**

#### Smart Hub > Reset Smart Hub (Try Now)

Reset all saved information relating to Samsung accounts and linked service accounts, as well as Smart Hub service agreements and applications.

# Using Smart Hub with Samsung Account



Actual menu screen may differ depending on the TV model.

# **Creating a Samsung Account**

### Smart Hub > Samsung Account Try Now

Some Smart Hub services are paid services. To purchase such a service, the service provider account or Samsung Apps TV account (Samsung account) is required.

You can create a Samsung Account using your email address.

- To create a Samsung Account, you must agree to the Samsung Account end user agreement and privacy policy. Otherwise, you cannot create a Samsung Account. You can view the entire content of the agreement by navigating to Smart Hub > Samsung Account > Terms and Conditions, Privacy Policy.
- Alternatively, you can create a Samsung Account at http://content.samsung.com. You can use one ID for both the TV and the website.

### Creating a Samsung Account using Sign Up Samsung Account Menu

- Navigate to Smart Hub > Samsung Account > Create Account and select Create a Samsung account.
- 2. Agree to use a Samsung Account and select Next.
- Create a Samsung Account according to the instructions on the Create Account screen.
   Once a Samsung Account is created, you will be automatically logged in to Smart Hub.

### Creating a Samsung Account using a Facebook Account

A Facebook user can easily obtain necessary information from Facebook and create a Samsung Account,

- 1. Navigate to Smart Hub > Samsung Account and select Log In.
- 2. Select + and select the Create with Facebook.
- 3. Enter your Facebook ID and password and select Sign In.
- 4. Agree to use a Samsung Account and select Next.
- Create a Samsung Account according to the instructions on the Create Account screen. Once a Samsung Account is created, you will be automatically signed in.
  - If you create a Samsung Account using your Facebook account, they are automatically linked.

# Signing into Samsung Account

### Smart Hub > Samsung Account > Log In

### Logging into and Saving a Samsung Account

If you haven't logged into your Samsung Account on the TV, you must save your Samsung Account on the TV.

- 1. Navigate to Smart Hub > Samsung Account and select Log In.
- 2. Select (+) and select Sign In.
- 3. Enter your ID and password and then select Sign In.
  - Check the Sign me in automatically option if you wish to log into Smart Hub automatically.
  - If you forgot your password, select **Reset password** to receive password reset instructions via email.
- Select an image to be used as the profile picture. The Samsung Account has been saved on the TV.
- 5. Select Done to log into your Samsung Account.

### Easily Logging Into Your Samsung Account Saved on the TV

- 1. Navigate to Smart Hub > Samsung Account and select Log In.
- 2. Choose your Samsung Account and select Sign In.
- Using the login method configured for the selected Samsung Account, log into your Samsung Account,

# Linking My Samsung and App Accounts

### Smart Hub > Samsung Account > Link Service Accounts

Linking your Samsung Account to accounts of apps installed on the TV lets you automatically log into your linked app accounts when you log into your Samsung Account. For example, you can download the Facebook app and link your Facebook account to your Samsung Account. In this case, logging into your Samsung Account then automatically logs you into your Facebook account as well.

To use Link Service Accounts, you must first log into your Samsung Account.

## Linking an App Account

- 1. Navigate to Smart Hub > Samsung Account and select Link Service Accounts. A list of apps that can be linked to your Samsung Account is shown.
- 2. Select an app from the list. The Link to other accounts window appears on the screen.
- 3. Enter the current ID and password of the app to log in. When the login is complete, the app account is linked to the Samsung Account.

## Disconnecting a Linked Account

- 1. Navigate to Smart Hub > Samsung Account, select Link Service Accounts. Select an app to unlink.
- 2. A confirmation dialog box appears. Select Yes to unlink the app.

# Changing and Adding Information to Samsung Account

### Smart Hub > Samsung Account

Using the Samsung Account menu, you can manage your Samsung Account,

- To change the account information, you must be logged into your Samsung Account.
- 1. Navigate to Smart Hub > Samsung Account and select Edit profile.
- 2. Enter the password and then select **Done**. The edit profile screen appears.

The profile editing screen provides the following features.

Changing Profile Image

If you select Edit Profile Picture on the login screen, you can change the profile image.

Registering Your Face to Samsung Account

If you select Register face on the login screen, you can register your face to your Samsung Account. The registered face is used by the Sign-in Method.

- This is available only if the optional TV camera is connected to the TV.
- Choosing a Samsung Account Login Method for TV

Select Sign-in Method on the login screen and choose a login method. You can determine how to log into the TV with the saved Samsung Account.

Setting Auto Login

Check the Sign me in automatically option if you wish to log into Smart Hub automatically.

• Entering Basic User Information

You can enter your given name, surname, and date of birth.

Receiving e-mail about Samsung services

You can determine whether to receive e-mail about Samsung services. Containing the latest information.

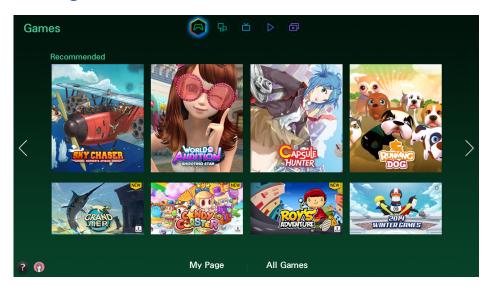
# Deleting All Samsung Accounts from the TV

#### Smart Hub > Samsung Account > Remove Accounts from TV

Navigate to Smart Hub > Samsung Account and select Remove Accounts from TV. The account and password information saved on the TV is deleted, and the account information of any linked apps are also deleted.

To delete your account information, you must be signed in with your Samsung Account.

# **Using the Games Panel**



- Actual menu screen may differ depending on the TV model.
- This service or some of functions of it may be not available in some countries or region.

Navigate to Smart Hub > Games to confirm the optimising game apps for Smart TV and detailed information on Smart hub. This makes it easier to download and play games. In addition, you can manage games that you have downloaded or purchased with your Samsung Account.

- Before you use the **Games** panel, check if the TV is connected to the Internet. The TV must be connected to the Internet in order to use the **Games** panel.
- To use the Games panel, you must log into your Samsung Account,

# **Using Pop-Up Menu Functions**

In the **Games** panel, move the focus to a desired game and press and hold the Enter button. The following functions are available:

- Downloading/Deleting a Game
  - Downloads or deletes the game from the TV.
- Viewing Detail Information of the Game
  - Displays detailed information of the selected game.

# Installing and Running a Game

- When the TV's internal memory is insufficient, you can install a game on a USB device.
- You can play a game installed on a USB device only when the USB device is connected to the TV. If the USB device is disconnected during a game playing, the game is terminated.
- The game installed on the USB device cannot be played on a different TV, or a PC.

## **Quickly Installing Games**

- Select All Games from the Games panel, navigate to a game from the list and press and hold the Enter button.
  - On the All Games screen, select the Da button to view the guide about the game controller.
  - On the All Games screen, select the button and select a desired sorting criterion. Then, the items in the list are accordingly rearranged.
- 2. In the pop-up menu, select Download.

The selected game is installed on the TV.

## Installing an App in the Detailed Game Information Screen

- 1. On the Games panel screen, select a game you wish to install. If you cannot find a desired game, select All Games at the bottom of the screen.
  - On the All Games screen, select the Da button to view the guide about the game controller.
  - On the All Games screen, select the button and select a sorting criteria. The games are sorted according to the criteria.
- 2. On the detailed information page of the selected game, select Download.

When installation is complete, the installation complete window appears.

## Launching a Game

To run an installed game, select Play on the detailed game information screen.

# Managing Downloaded or Purchased Games

In Smart Hub, move to the Games panel and select My Page at the bottom of the screen.

- On the My Page screen, select the putton to view the game controller guide.
- On the My Page screen, select the button and select a desired sorting criterion. This rearranges the list accordingly.

## **Updating a Game**

Select Update Games at top of the My Page screen to update games installed on the TV.

- The **Update Games** appears only when there is a game that needs to be updated.
- To update games automatically, select the button at top of the My Page and set the Auto Update games to On. Games will then be updated automatically when an update becomes available.

## Removing a Game

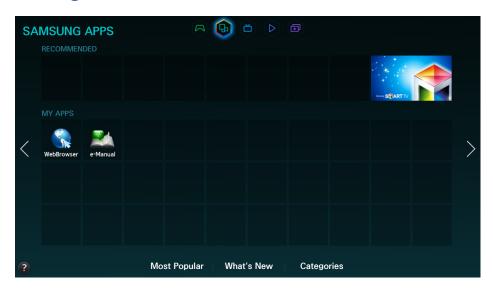
- 1. Press the button at top of the My Page screen and select Delete.
- 2. Select all of the games you wish to remove. To select all games, select Select All.
- 3. When the selection is complete, select **Delete**.
  - Navigate the game you wish to remove and press and hold the Enter button. Then you can easily remove the game.

## Rating/Sharing/Reviewing a Game

You can rate or share the game through a social network service or send a review to the developer on the detailed information screen,

You can rate / share / review a game only when the game has installed on the TV.

# **Using SAMSUNG APPS Panel**



- Actual menu screen may differ depending on the TV model.
- This service or some of functions of it may be not available in some countries or region.

Smart Hub offers a variety of free news, sports, weather, and gaming content you can install directly on your TV the same way as you would on a smartphone or tablet.

- Before you use SAMSUNG APPS, make sure the TV is connected to the Internet. Your TV must be connected to the Internet in order to use SAMSUNG APPS.
- Launching Smart Hub for the first time installs the default apps automatically. The default apps may differ depending on the region.

# **Using Pop-Up Menu Functions**

Move the focus to an app and press and hold the Enter button. You can use the following functions:

### Move

Relocates the selected app.

#### Delete

Removes the selected app.

### Delete Multiple

Removes multiple apps at once.

### View Details

Move to the detailed information of the selected app.

### Change view

You can change view mode sort by Custom view or Most Played.

### Lock/Unlock

You can lock or unlock a selected app from the screen.

### Update Apps

You can update the selected app.

# Installing an App

- When the TV's internal memory is insufficient, you can install an app on a USB device.
- Only when the USB device is connected are the app icons installed on the USB viewable on the **SAMSUNG**APPS screen. You can use an app installed on a USB device only when the USB device is connected to the TV. If the USB device is disconnected while the app is running, the app is terminated.
- The app installed on the USB device is not available on a different TV, or a PC.

### Quick Installation

- 1. On the SAMSUNG APPS screen, select Most Popular, What's New, or Categories.
  - The Most Popular and What's New show the most popular and newest Samsung Apps. To view the entire app list, select Categories. You can view all Samsung Apps classified by genre.
- 2. Move the focus to an app and press and hold the Enter button, A pop-up menu appears.
- 3. On the pop-up menu on the screen, select **Download**.
  - While an app is being installed, the progress bar appears at the bottom of the app icon so that you can easily figure out the installation progress.
- 4. The selected app is installed on the TV.
  - You can view installed apps on the SAMSUNG APPS screen,

## Installing an App from the Detailed App Information Screen

- 1. On the SAMSUNG APPS screen, select Most Popular, What's New, or Categories.
  - The Most Popular and What's New show the most popular and the newest Samsung apps. To view the entire app list, select Categories. You can view all Samsung Apps by category.
- 2. Select an app from the list, Detailed information about your selection appears on the screen.
- 3. Select Download on the detailed information screen to install the selected app on the TV.
  - When an app is being installed, a progress bar appears underneath the app icon.
- 4. When the installation is complete, the **Download** button turns to **Open**.
  - You can view installed apps on the SAMSUNG APPS screen.

## Launching an App

Select an app on the SAMSUNG APPS screen to launch it.

The icons indicate the following:

- 🖰 : The app supports motion control.
- Image: The app is installed on a USB device.
- The app supports a pointer that can move by the Samsung Smart Control.

# **Default Apps**

### e-Manual

The embedded e-Manual contains information.

# **Using Web Browser**

Web Browser is an Internet browsing app. Using Web Browser, you can surf the Internet on the TV in the same manner as you would using a PC even while watching a TV programme on PIP.

- Use a keyboard and mouse for a more convenient web browsing experience.
- The browsing screen may differ from that on a PC.

## **Browsing Methods**

Web Browser provides two browsing methods: Pointer Browsing and Link Browsing. Pointer Browsing enables you to move the pointer for selection while Link Browsing allows using the direction arrows to move the focus.

The default browsing method of Web Browser is **Pointer Browsing**. To enable **Link Browsing**, select the **Link Browsing** icon.

### Command and Status Bar at a Glance

Open the Web Browser to display the command and status bar at the top of the screen. The following items are available:

• Back

Move to the previous page.

Forward

Move to the next page.

• Bookmarks & History

Move to the Bookmarks & History screen. On this screen, add the current page to Bookmarks, or move, edit, or delete a bookmarked page. Easily access visited pages by navigating the History screen.

Home Page

Move to the main screen.

Address Bar

Check the address of the current page, or enter a web page address to move to the page.

Refresh / Stop

Reload the current page or stop reloading the current page.

Add to Bookmark

Add the current page to Bookmarks.

Search

Make a keyword search using the user-specified search engine.

To change the search engine, select the icon and then select a search engine in the Set Search Engine menu.

Zoom in or out of the current web page.

PIP

Use Web Browser while watching a TV programme on the same screen.

• Link Browsing / Pointer Browsing

Select one from two browsing methods supported by Web Browser.

Settings

Configure the Web Browser settings.

Close

Exit Web Browser,

New Tab

Open a new tab,

## **Browsing Preferences**

Select the item on the screen. Configure the browsing settings to your needs or convenience.

Some items may not be available depending on the web page. Unavailable items are grayed out.

Approved Sites

To prevent children from accessing inappropriate web pages, limit access to pre-registered web pages.

You will be asked to enter a password when selecting **Approved Sites**. Enter the password. The default password is 0000,

Approved Sites feature: Enable/disable the Approved Sites feature.

Reset password for Approved Sites: Change the password.

Add current site: Add the current web page to Approved Sites.

Manage Approved Sites: Enter the address of the web page that you want to add to Approved Sites, or select one from the list and delete it.

Enabling the Approved Sites feature with no web page listed will restrict access to any web page.

### Private browsing on / Private browsing off

Enable/disable the **Private Browsing** feature. Enabling **Private Browsing** will not save the browsing history.

When enabling Private Browsing, the oicon appears at the start of the address bar.

### PIP Settings

Configure the PIP settings.

This is available only if watching TV in PIP mode.

Position: Select the position of the sub picture.

#### Set Search Engine

Set the default search engine from the list.

#### Web Browser Settings

Configure the Web Browser Settings, such as browsing behaviors or security.

**Set as homepage**: Select a web page and set it as the homepage.

Pop-up Block: Block or unblock pop-up windows.

Page Block: Block or unblock pages such as commercial pages. Manage a list of pages to block by entering the address of a web page.

General: Delete browsing history or Internet usage information, or reset Web Browser. Set Security Mode to On to restrict access by malicious codes or phishing sites.

Encoding: Set the Auto select to On, or select an encoding method from the list.

Pointer: Adjust the pointer speed in Pointer Browsing mode, or change the link access method.

Browser Information: Check the current version of Web Browser.

## Help

This will familiarise yourself with the basics of Web Browser.

# Rearranging Apps on the SAMSUNG APPS Screen

- 1. On the SAMSUNG APPS screen, move to the app you wish to change the order.
- 2. Press and hold the Enter button. A pop-up menu appears.
- 3. On the pop-up menu, select Move.
- 4. Move an app to a desired location and select the app again.

# Removing an App from the TV

Note that if an app is removed, the data related to the app is also deleted.

## Removing an App

- 1. On the **SAMSUNG APPS** screen, move to the app you wish to remove.
- 2. Press and hold the Enter button, A pop-up menu appears.
- On the pop-up menu on the screen, select Delete. A removal confirmation window appears.
   Select Yes. The selected app is removed.

## Removing Multiple Apps

- 1. On the **SAMSUNG APPS** screen, move to the app you wish to remove.
- 2. Press and hold the Enter button. A pop-up menu appears.
- 3. On the pop-up menu on the screen, select **Delete Multiple**. A check box appears on the app icons,
- Select all the apps you wish to remove and then select Delete. A removal confirmation window appears. Select Yes. Selected apps are removed.

# Rating/Reviewing an App

On the detailed app information screen, you can rate the app or send a review to the app developer.

To rate or review an app, you must log into your Samsung Account. You can only rate or review with a TV purchasing apps and games.

# **Updating an App**

- 1. On the **SAMSUNG APPS** screen, move to the app you wish to update.
- 2. Press and hold the Enter button. A pop-up menu appears.
- 3. On the pop-up menu on the screen, select **Update apps**. A pop-up window appears.
- 4. Select all the apps you wish to update and then select **Update**. All the selected apps are updated to the latest versions.

## **Setting Auto App Update**

### Smart Hub > Apps Settings

To update apps automatically, navigate to **Smart Hub** > **Apps Settings** and set **Auto update** to **On**. The apps installed on the TV are automatically updated as updates become available.

## **SAMSUNG APPS Features**

## Smart Hub > Apps Settings (Try Now

You can configure the features related to the apps installed on your TV.

## **Enabling Automatic Tickers**

You can configure selected tickers to display automatically when the TV is turned on. Ticker Service enables you to use other services while watching TV. You can receive news, stock, and weather information and more in real-time while watching TV.

- To use this feature, make sure that an app supporting the Auto Ticker function is installed on the TV.
- Navigate to Smart Hub > Apps Settings and select Auto Ticker. A list of installed apps that support Ticker Autorun appears.
- 2. From the list, select apps you wish to run automatically when the TV is turned on.

## **Setting Push Notification**

Push notification function enables apps installed on the TV to send alerts and messages to the user,

- Navigate to Smart Hub > Apps Settings > Push Notification Settings and set the Push Notification to On.
- 2. Set the Push Notification setting of apps you wish to receive push notifications from to On. Push notification function of the selected apps is activated.
  - The Push Notification app list only shows installed apps that support Push Notification Settings.

## Using an App while Watching TV

If an app linked to a channel is installed on the TV, you can view programme information and use related services offered by the app while watching TV.

Navigate to Smart Hub > Apps Settings and set Channel-Bound Apps to On.

This feature is only available with apps supporting Channel-Bound Apps installed on the TV.

# **Using On TV Panel**



- Actual menu screen may differ depending on the TV model.
- This service or some of functions of it may be not available in some countries or region.
- Availability of recommended content depends on the specific model and area.

Smart Hub's On TV panel lets you view programme lists for recommended channels while watching TV. You can then switch to a programme in the recommendation list or set up Schedule Viewing / Schedule Recording for an upcoming programme.

- Before you use On TV, check if the TV is connected to the Internet. The TV must be connected to the Internet in order to use On TV.
- The channels or programmes recommended by **On TV** may differ from the actual ones depending on the broadcast information provider.

Select a desired programme from the recommendation list. You can watch the selected programme immediately if it is currently on air or move to the detailed programme information screen if it hasn't aired yet.

- Select Of from the screen to change the recommended content list.
- For a programme being broadcasted, a progress bar appears. For an upcoming programme, the remaining time to broadcast appears.

Move to the navigation bar at the bottom of the screen to access the following options:

### • Viewing the Programme Schedule of Digital Channels

Select Guide at the bottom of the screen to view the programme schedule of each digital channel at a glance. You can check the programme schedule and even set up a Schedule Viewing or Schedule Recording.

The Guide provides information only about digital channels. Analogue channels are not supported.

### • Programme Recommendations by Time

Select **Timeline View** at the bottom of the screen to view programme recommendations for different times of the day.

#### Popular Videos

Select **Trending** at the bottom of the screen to view the most trendy or popular content in Twitter and set up a **Schedule Viewing** or **Schedule Recording**.

### Watching a Recorded Programme

Select Recorded TV at the bottom of the screen to watch a recorded programme,

# **Using Pop-Up Menu Functions**

Move the focus to a desired programme and press and hold the Enter button. The following options are available:

Available functions may differ depending on the selected programme.

### Recording the Current Programme

You can instantly record a programme that is being broadcast on a different channel.

#### Viewing Detailed Information

You can move to the detail information screen about the selected programme.

#### Reserving

You can set up a Schedule Viewing or Schedule Recording for the programme,

# **Viewing Detailed Programme Information**

- 1. Move the focus to a desired programme and press and hold the Enter button. The Options menu appears,
- 2. From the Options menu on the screen, select Detailed Information. The detailed information about the selected programme screen appears.

You can find more information about the selected programme in the detailed information screen and you can easily use the following functions:

### Moving to a Channel

Jump to the selected programme's channel.

#### Record

You can record the programme.

This function is only available for programmes that is being broadcasted.

### Reserving

Set up a Schedule Viewing or Schedule Recording for the programme.

This function is only available for programmes that is being broadcasted.

#### Viewing Related Content

View a list of content related to the programme. If you select an item from the list, the detailed screen of the selected item appears.

#### Rate

You can rate the programme.

#### Sharing

You can share detailed information about the programme on social networking services.

## **Configuring On TV Settings**

Availability depends on the specific model and area.

### Smart Hub > On TV Settings

You can set up the signal reception method, cable company, and other broadcast viewing environment settings for On TV.

Navigate to Smart Hub > On TV Settings, select Set Up Service Provider settings and set up the broadcast viewing environment settings according to the onscreen instructions.

## **Receiving Automatic Notifications**

You can configure the TV to display a notification when a frequently watched programme is broadcast. Navigate to Smart Hub > On TV Settings and set Automatic Notifications to On.

### Changing Recommendation Type

You can choose between personally preferred programmes and programmes preferred by the general public as the type of recommendations you wish to receive.

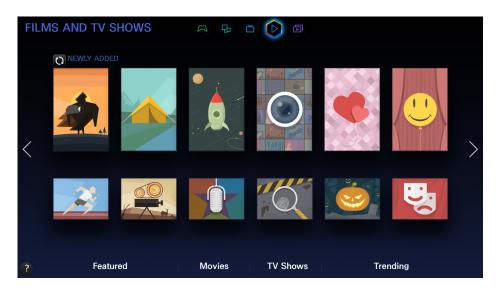
Navigate to Smart Hub > On TV Settings, select Recommendation Type and set it to a desired type.

### Removing Adult Content from the Recommended List

You can configure this setting so that recommended programmes that are rated for adults are blocked automatically.

Navigate to Smart Hub > On TV Settings and set Block Adult Content to On.

# Using FILMS AND TV SHOWS Panel



- Actual menu screen may differ depending on the TV model.
- This service or some of functions of it may be not available in some countries or region,

Use this feature to purchase and view movies and TV programmes recommended by FILMS AND TV SHOWS without having to use an external device such as a DVD player or a Blu-ray player, FILMS AND TV SHOWS provides an easy access to a collection of movies and TV programmes available in Smart Hub.

- Not all the FILMS AND TV SHOWS options may be available depending on the content you are trying to access or your region.
- Before you use **FILMS AND TV SHOWS**, make sure the TV is connected to the Internet. The TV must be connected to the Internet in order to use **FILMS AND TV SHOWS**.
- Select of from the screen to change the recommended content list.

Move to the navigation bar at the bottom of the screen to access the following options:

- To sort the content items in each menu, select the button at top of the screen and choose a sorting criteria. However, depending on the selected menu, the button may not appear.
- Press in each menu's contents list screen to display only movies or TV programmes in the list. The button may not be shown, depending on the selected menu.
- Enjoying Featured Movies and TV Programmes

Select **Featured** to view movies or TV programmes selected according to various themes such as movies featuring an actor who went to Hollywood, completed TV series, and so on.

Viewing a Movie

Select Movies to view a movie from among the movies listed by new arrival, popularity, and genre.

• Viewing a TV Programme

Select TV Shows to view a TV show from among the TV shows listed by new arrival, popularity, and genre.

Viewing Hot Movies and TV Shows at a Glance in Real-time
 Select Trending to view movies and TV programmes that are the most trendy or popular.

# **Using Pop-Up Menu Functions**

Move the focus to a desired movie or TV programme and press and hold the Enter button. The following options are available:

Available options may differ depending on the selected programme.

Instant Content Playing

Select an app for the selected content to play it right away.

If the selected app is not installed, a pop-up window will appear. From the pop-up window, move to the detailed app information page or install the app.

## Watching a Movie/TV Programme

- If you are using FILMS AND TV SHOWS for the first time or have not logged into your Samsung Account, new and popular movies and TV shows will be shown in the FILMS AND TV SHOWS list. To view a customised recommendation list in FILMS AND TV SHOWS, first log into your Samsung Account, You can view a list of frequently played content on FILMS AND TV SHOWS screen in addition to the default recommended content list.
- 1. On FILMS AND TV SHOWS screen, select a movie or TV programme you wish to watch. Detailed information about your selection appears on the screen.
- 2. On the detailed information screen, select an app to play the content. This launches the selected app and displays detailed information about the content.
  - If the selected app is not installed, a pop-up window will appear. From the pop-up window, move to the detailed app information page or install the app.
- 3. You can play the content in the detailed information of the content.
  - If the selected content is free, you can instantly watch the content. If the content is a paid content, you must first purchase the content in the app (In-App Purchase).
  - The purchasing procedures on the app may differ depending on the app. You may need to log into the app or enter payment information.

# **Restricting Purchased Content Viewing**

## Smart Hub > VOD Rating Lock

You can lock content rated as adult content so that children cannot access the content.

Navigate to Smart Hub and set VOD Rating Lock to On.

To turn on or off the **VOD Rating Lock**, the password is required.

# Rating and Sharing a Purchased Content

## **Rating Content**

- 1. Select content in FILMS AND TV SHOWS. Detailed information about your selection appears on the screen.
- 2. Select state button on the detailed information screen. A pop-up window appears.
- 3. You can rate the item using the < and > buttons in the pop-up window.

## **Sharing With SNS**

- Select content in the FILMS AND TV SHOWS. Detailed information about your selection appears on the screen.
- 2. Select either 

  or 

  button in the detailed information screen. The login page of the selected SNS appears,
  - If you have linked your Samsung Account to the SNS account, you were automatically logged into the SNS account when you logged into your Samsung Account,
- 3. On the SNS login screen, enter your SNS ID and password to log into the SNS.
  - If you have linked your Samsung Account to the SNS account, you can skip this step,
- 4. In the pop-up window, type the article you wish to post to the SNS and select **Post**. The article is posted to the SNS.

# Playing Photos, Videos, and Music (MULTIMEDIA)



- Actual menu screen may differ depending on the TV model.
- This service or some of functions of it may be not available in some countries or region,

You can play media content saved on a USB device, smartphone, camera, computer, or Storage Service on the TV,

- You cannot play media content if the content or the storage device are not supported by the TV. For more information, refer to "Photo, Video, and Music File Limitations".
- Backup important files before connecting a USB device. Samsung shall not be held responsible for damaged or lost files.

# Playing Media Content from a USB Device

- 1. Select USB Drive in the MULTIMEDIA panel, USB devices connected to the TV are listed.
- 2. Select the device you wish to access. Folders and files of the selected USB device are listed.
- 3. Select the media content you wish to play. This plays the selected content.
  - Alternatively, move to the media content to play and press the ▶ button to play the content.
- If you connect a USB device to the TV while watching the TV, a pop-up window appears on the screen so that you can easily navigate the folders and files of the USB device.
- Alternatively, if you select a USB device on the **Source** screen, a pop-up window appears on the screen so that you can easily navigate the folders and files of the USB device.

## Safely Removing a USB Device

- 1. Press the **SOURCE** button. The Source screen appears.
- 2. Navigate the USB device you wish to remove, and press and hold the Enter button. An options window appears,
- 3. Select Disconnect USB Device from the list.

# Playing Multimedia Content Saved in a Computer/Mobile Device

- To view a guide about the PC connection, select Connecting to PC under Network Device.
- To view a guide about a Smartphone or tablet connection, select Connect to a Phone under Network Device.

## Allowing Connection with a Computer/Mobile Device

To play multimedia content in a computer or mobile device on the TV, you need to allow the connection with the computer on the TV.

- You can connect to a computer or mobile device on any DLNA DMC device. DLNA DMC function enables users to connect a mobile device to the TV, search for multimedia content and control play operations on the TV.
- 1. Select **Network Device** in the **MULTIMEDIA** panel. Devices connected to the TV are listed.
- 2. Select Options and then Multimedia device settings, Devices connected to the TV are listed,
  - Alternatively, select Multimedia Device Settings from the Network menu to see the list of the devices connected to the TV. Try Now
- 3. Allow connection with the desired device you wish to connect to the TV. You can only play media files from devices that have been allowed to connect to the TV.
  - If a computer or mobile device requests the multimedia content play, the connection allowance confirmation window appears on the TV so that you can easily connect the computer or mobile device.

## When Connected through Home Network (DLNA)

- To connect a computer through home network (DLNA),
- To connect a mobile device through home network (DLNA),
- You may experience compatibility issues when attempting to play media files via a third-party DLNA server,
- However, the content shared by a computer of a mobile device may not play depending on the encoding type and file format of the content. In addition, some functions may not be available.
- The multimedia content may not smoothly play depending on the network status. If this is the case, use a USB storage device.
- 1. Select Network Device in the MULTIMEDIA panel, Devices connected to the TV are listed.
- 2. Select a device connected via the home network (DLNA). Folders and files shared by the selected device will be listed.
- 3. Select a media content you wish to play from the list. This plays the selected content.
  - Alternatively, move to the media content and press ► to play.

## When Connected through Samsung Link

- To connect a computer through Samsung Link.
- To connect a mobile device through Samsung Link.
- However, the content shared by a computer of a mobile device may not play depending on the encoding type and file format of the content. In addition, some functions may not be available.
- The multimedia content may not smoothly play depending on the network status. If this is the case, use a USB storage device
- Navigate to Smart Hub > Samsung Account menu and select Log In to sign in with your the Samsung Account,
- 2. Select Network Device in the MULTIMEDIA panel, Devices connected to the TV are listed.
- Select a device connected via Samsung Link, Folders and files shared by the selected device will be listed.
- 4. Select a media content you wish to play from the list. This plays the selected content.
  - ✓ Alternatively, move to the media content and press > to play.

# Playing Media Content from a Storage Service

Storage Services store user content such as photo, video, and music files on a server so that they can be viewed/played on the TV over the Internet. It's also possible to view your media content saved on Storage Services such as Dropbox and SkyDrive from the TV.

- To play content from a Storage Service, you must log into your Samsung Account and link it to the Storage Service account.
- Navigate to Smart Hub > Samsung Account menu and select Log In to sign into your Samsung Account.
- Select Storage Service in the MULTIMEDIA panel. Storage Services linked to your Samsung Account appears.
- 3. Select a Storage Service, Folders and files found in the selected Storage Service are listed.
- 4. Select the media content you wish to play from the list. This plays the selected content.
  - Alternatively, move to the media content and press ► to play.

# **Buttons and Functions Available while Viewing Photos**

Press enter to access the following buttons. Pressing RETURN hides the playback buttons.

## • Pause / Play

Start or stop the slide show. The slide show feature displays all the photos contained in the selected folder, one photo at a time.

## Previous / Next

View the previous/next photo in the queue.

### Settings

Function	Description
Slideshow Settings	Speed: Set the slide show speed.  Effects: Apply transition effects to the slide show.
Rotate	Rotate the photo.
Zoom	Zoom in by up to a factor of 4.
Picture Mode	Change Picture Mode.
Background Music	Listen to background music while viewing photos.  The music file must be located on the same device as the photo files.  A mini player appears on the screen when background music is played. Use the mini player to pause the music or play a different music file.
Sound Mode	Change Sound Mode.  This option is supported only when background music is playing.
Select Speakers	Choose speakers for the background music.
Send	This function is the same as the "Copy" function of a computer. Use this function to send the current photo to another storage device.  For information on storage devices supported by this feature, refer to "Storage Device File Transfers".
Information	View detailed information about the current photo.

# **Buttons and Functions Available while Watching Video**

Press enter to access the following buttons. Pressing RETURN hides the playback buttons.

### Pause / Play

Pause or play the video.

When the video is paused, you can use the following functions. However, audio will not be heard while the video is paused,

- Step: Press II to scan the paused video one frame at a time.
- Slow Motion: Select the 
   button to play the video at reduced speed (1/8, 1/4, 1/2).

### Rewind / Fast Forward

Rewind or Fast Forward the video. Repeatedly select the button to make the rewind/fast forward speed faster by up to 3 times. To restore normal playback speed, select >.

#### Previous / Next

Select we twice to play the previous video. Selecting we once reloads the current video from the beginning.

To play the next video, select the ▶ button.

## • Settings

Function	Description
Select Scene	<ul> <li>Thumbnails: Select a scene and play the video from the scene.</li> <li>✓ Thumbnails is not available when 1) the thumbnail of the video is not extracted yet, 2) the video contains audio only or 3) the video play time is shorter than 60 seconds.</li> <li>Chapter Titles: Select and play another video in the same folder.</li> <li>Time Bar: You can use the 〈, 〉 buttons to scan through the video in 10 seconds intervals or enter a specific time value to jump to that point in the video.</li> </ul>
Subtitles	Control the subtitle of the video.  Language: Turn the subtitles on or off.  Sync: When the video and the subtitles are not synchronised, you can adjust the synchronisation.  Reset Sync: Reset the subtitle synchronisation adjustment to 0.  Size: Choose the font size for the subtitles.  Encoding: If the subtitles are broken, you can change the encoding language.
Repeat	Set the repeat mode. Repeat One repeats the current programme only. Repeat All repeats all programmes contained in the folder.
Rotate	Rotate the video.
Picture Size	Change the picture size. However, the supported picture size is determined by the video content.
Picture Mode	Change the Picture Mode setting.
Sound Mode	Change the Sound Mode setting.
Select Speakers	Choose a speaker to play the audio.
Audio Language	Choose a desired audio language. This option works only when the video supports multi-track sound.
Information	View detailed information about the video.

# **Buttons and Functions Available while Playing Music**

Press enter to access the following buttons. Pressing RETURN hides the playback buttons.

### • Pause / Play

Pause or resume the music.

#### Rewind / Fast Forward

Rewind or fast forward the music, To restore normal playback speed, select >.

### Previous / Next

Select we twice to play the previous music file. Selecting we once reloads the current music file from the beginning.

To play the next music file, select the >> button.

### Repeat

Set the repeat mode. Repeat One repeats the current music file only. Repeat All repeats all music files contained in the folder,

#### Shuffle

Play the music files in order or randomly.

### Select Speakers

Choose a speaker to play the audio.

#### Sound Mode

Change the Sound Mode setting,

# **Functions on the Media Content List Screen**

The media content screen for the selected storage device includes the following functions.

### Filter

Use this option to filter the list to see only the photo, video, or music files contained in the storage device.

### Sort by

Sort the list by content type.

This function is not available when Filter is set to All.

### Options

This function is not available when **Filter** is set to **All**.

Function	Description
Slide Show	Start the slide show.  This option is available for photo files. This option is not available with Sort by set to Folder.
Play Selected	Play only the selected content.
Send	This function is the same as the "Copy" function of a computer. Use this function to send the media content to another storage device.  For information on storage devices supported by this feature, refer to "Storage Device File Transfers".
Encoding	If the media content's title is being displayed incorrectly, you can change the encoding method.  This function is available only for music files.
Rename Playlist	Rename your playlist.  This function is available only when the media content is music.
Delete Playlist	Delete a playlist that you have created.  This function is available only for music files.
Add to Playlist	Add a file to an existing playlist or create a new playlist.  This function is available only for music files.
Index	If the content list is too long to navigate efficiently, select a letter to quickly skip to that section of the list.  This is not available when Sort by is set to Folder.

# TV Control using your Voice

Availability depends on the specific model and area.

### System > Voice Control

You can access and select certain menu options and functions using voice commands. For more effective voice recognition, speak slowly and clearly in the language specified in the System > Voice Control > Language option.

- Voice Control is classified into two: interactive voice control that enables conversational instructions, and imperative voice control where only pre-defined instructions are used. Smart Hub setup, and time settings, as well as the user's agreement on the use terms. Trying the interactive voice control without completing any of these requirements will display a notification pop-up. Follow the onscreen instructions and complete the necessary settings. The imperative voice control is available regardless of the interactive voice control settings. Use only "pre-defined commands" in the imperative voice control mode.
- Please read through the instructions before using Voice Control. For more information, refer to "Read Before Using Voice, Motion, or Face Recognition".
- If you use the Voice Control function interactively at least once, the TV will change the on-screen menu name from Voice Control to Voice Interaction.

# **Enabling Voice Control**

- 1. Press the VOICE button on the Samsung Smart Control. The microphone icon appears on the screen when Voice Control is enabled.
- Say a command. You can use Voice Control to operate the TV when you are watching the TV or other videos.
  - Say the command from 10cm to 15cm away from the microphone on the Samsung Smart Control. Voice commands may not be recognised properly if you speak too softly or loudly. The optimal volume for voice commands is between 75 dB and 80dB.

### Using the Voice Recognition Tutorial

### Support > Voice Recognition Tutorial

This lets you familiarise yourself with the basics of using Voice Control. Run Voice Recognition Tutorial from the Support menu, or run Voice Control and say "Tutorial".

### **Learning Voice Control Basics**

Moving the focus

Say "Focus left", "Focus right", "Focus up", or "Focus down" to move the focus. However, these commands can only be used in situations when the focus can be moved.

Selecting an item

Say "Select" to confirm the selection.

All Voice Commands

Say "Help" to display the complete list of voice commands, organised by category.

Deactivating Voice Control

Press VOICE button. This terminates Voice Control.

The TV recognises predefined voice commands only, and the voice commands may differ from the manual depending on the version.

## **Changing Voice Control Language**

### System > Voice Control > Language

Navigate to System > Voice Control > Language, and select a preferred language from the list. Now you can use Voice Control in the specified language.

Interactive Voice Control is not available in some languages. If this is the case, choose a different language.

# Using the Voice Interaction function Interactively

Availability depends on the specific model and area,

Voice Control allows you to set up Schedule Recording/Schedule Viewing, access VODs, search and launch applications, and execute various other commands using voice commands and without having to remember specific commands or keywords. Saying "Turn off the TV in 30 minutes", for example, instructs the TV to turn off after 30 minutes (Sleep Timer).

If you use the Voice Control function interactively at least once, the TV will change the on-screen menu name from Voice Control to Voice Interaction.

Activate Voice Interaction and say a command. See the examples below:

When you don't know which channel a specific programme is on:

```
"Watch **** (Title)". / "Play **** (Title)". / "Run **** (Title)"
```

When you want to find a specific programme or content item:

```
"*** (Title)" / "Find *** (Title)."
```

• When you want to reserve and record a programme:

```
"Remind me to watch *** (Title)." / "Set up a timer to record *** (Title)." / "Record *** (Title)."
```

When you want to know various daily information:

```
"What's the weather in *** (place name)." / "What is the *** (company) stock price?"
```

When you want programme recommendations:

"Recommend something to me." / "Are there any popular drama (genre) out?"

When you want to operate the TV:

```
"Volume ** (level)" / "Channel ** (Number) / ** (channel name)"
```

When you play an app for the camera, such as skype, or for fitness:

```
"Camera" / "Fitness" / "Skype"
```

When you log in or out of the Samsung Account:

```
"Sign In *** (User name)" / "Sign Out *** (User name)"
```

## **Enabling/Disabling TV Voice**

Enable/disable the TV's voice responses to your Voice Control commands. Navigate to System > Voice Control menu and select Use TV Voice.

## **Enabling TV Voice in Selected Voice Gender**

Navigate to System > Voice Control > Voice Gender, and select a voice gender. Enjoy the TV voice in the selected voice gender.

# TV Control using Motions

Availability depends on the specific model and area.

#### **System > Motion Control**

It's possible to use motion commands to change channels, adjust the volume, and control the pointer while searching the web using Smart Hub. A TV camera (sold separately) needs to be connected in order to use Motion Control.

- ⚠ The optional TV camera must be connected to the dedicated USB port at the back of the TV. No other USB port is available for this purpose.
- Please note, that not all apps support Motion Control.
- Please read through the instructions before using **Motion Control**. For more information, refer to "Read Before Using Voice, Motion, or Face Recognition".
- Motion Control is not available while Voice Control is activated.
- You can view supported TV camera model at http://www.samsung.com.

# Testing Ambient Illumination Using the TV Camera

#### System > Motion Control > Motion Control Environment Test

Run this test before using Motion Control to ensure proper functionality,

- Initiate the Motion Control Environment Test, and select Start 1.5m to 3.5m away from the TV.
   If the light is reflected onto the TV's screen, or there are moving objects in the background, the motion may not be properly recognised by the TV.
- 2. Face the TV camera, and follow the onscreen instructions to raise your hand from a comfortable position with the index finger spreading upwards, and move it left or right slowly. A pointer appears on the screen when the TV recognises the action. If the recognition fails, change the hand position and try again.

## Checking Illumination (Motion Control Environment Check)

## Support > Self Diagnosis > Motion Control Environment Check

Navigate to Support > Self Diagnosis menu and select Motion Control Environment Check. This measures the illumination level around the TV to check if it is suitable for voice and motion control use.

# **Activating Motion Control**

#### System > Motion Control > Motion Control

To enable Motion Control, face the TV camera and raise your hand from a comfortable position with the index finger spreading upwards, and move it left or right slowly. When your hand is successfully recognised by the TV camera, Motion Control is activated and a pointer appears on the screen.

- If Motion Control is activated, a pop-up window appears and guides you through basic use of Motion Control.
- Moving your hand out of the range of the TV camera deactivates Motion Control. To reactivate Motion Control, simply raise your hand towards the TV camera within 3 seconds.
- The recognition may be terminated if the index finger does not fully spread out or is moved too fast.

## **Using Motion Control Tutorial**

#### Support > Motion Control Tutorial

This lets you familiarise yourself with the basics of using Motion Control. From the **Support** menu, run **Motion Control Tutorial**.

If Motion Control is activated, a pop-up window appears and guides you through basic use of Motion Control.

## **Learning Motion Control Basics**

The following basic motion control commands are available:

Moving the pointer



Moving your hand moves the pointer accordingly.

### Selecting an item



Fold and then spread your index finger as if clicking on a mouse. You can select a TV menu or run a function. Keeping your index finger folded is like holding down the remote control button.

### · Returning to the previous menu



Make a large counterclockwise circle with your hand to return to the previous menu.



## Moving to the Smart Hub panel



Move your hand from left to right or from right to left as you would turn a book page. You can directly move from Smart Hub to another panel screen. (Example: SAMSUNG APPS panel $\rightarrow$  On TV panel)

#### • Displaying Smart Hub's context menu



On the Smart Hub screen, fold your index finger for more than 1 second and spread it out. This displays the selected item's context menu.



The screen's option menu differs depending on the selected lists.

## **Showing and Hiding Animated Motion Guide**

Navigate to System > Motion Control, and select Animated Motion Guide from the menu. Now you can display an animated guide when Motion Control is activated.

## **Adjusting Pointer Speed**

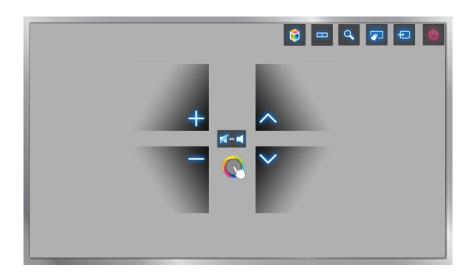
Navigate to System > Motion Control > Pointer Speed, and select a pointer speed.

# **Motion Control Screen Layout**

## Motion Control Layout on the TV Screen

Activating Motion Control while watching the TV displays the following icons on the screen:

lcons appearing on the screen may vary depending on the model.



Icon	Description
+ , -	Adjusts the volume.
<b>%</b> ↔ ■	Mutes or unmutes the TV.
<u> </u>	Changes the channel.
<b>\(\beta\)</b>	Launches Smart Hub.
	You can split the TV screen and use variable functions such as watching the TV, surfing the web and watching the video and so on.  Availability depends on the model.
Q	Press this button to search for information through the search window in various services.
	The virtual remote control appears.
Ð	Changes the source.
	Turns the TV off.

## Motion Control Layout on the Smart Hub Screen

Activating Motion Control while using Smart Hub displays the following icons on the screen:

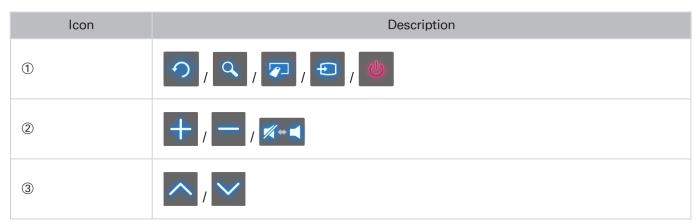


Icon	Description
+,-	Adjusts the volume. However, this is only available for On TV.
<b>#</b>	Mutes or unmutes the TV. However, this is only available for On TV.
<b>^</b> / <b>~</b>	Changes the channel. However, this is only available for On TV.
2	Returns to the previous menu.
Q	Press this button to search for information through the search window in various services.
	The virtual remote control appears.
Ð	Changes the source.
	Turns the TV off.

## Displaying Hidden Icons When Using Smart Hub

When using Motion Control with Smart Hub, the icons will disappear automatically after 2 seconds of inactivity. To display the hidden icons, move the pointer to one of the three edges shown below (marked in blue) and then hold it there for 1 second. The icons will reappear on the screen.





# Signing in with Face Recognition

Availability depends on the specific model and area.

Users can register their faces using the TV camera, and sign in with their Samsung accounts through Face Recognition. One face may be registered per account. Depending on the ambient illumination level and/or shadows over the face, the TV may have difficulty recognising the user's face.

Please read through the instructions before using Face Recognition. For more information, refer to "Read Before Using Voice, Motion, or Face Recognition".

To enable Face Recognition, first connect the optional TV camera to the TV.

⚠ The optional TV camera must be connected to the dedicated USB port at the back of the TV. No other USB port is available for this purpose.

# Registering Your Face to Your Samsung Account

Register your face to your Samsung Account to allow the TV to recognise you by your face. Create a new account if you do not already have one.

- First, you must sign in with your Samsung Account,
- Navigate to Edit profile (Smart Hub > Samsung Account > Edit profile) and select Register face in the account information screen.
  - To register your face using the Virtual Remote panel, press **KEYPAD** to select your active Samsung Account and then select **Edit profile**,
  - To register your face using the **Games** panel of **Smart Hub**, select the currently signed-in Samsung Account on the screen and then select **Edit profile**.
- 2. Read the information displayed in the pop-up window, select **OK**, and then enter the account password.
- 3. On the face registration screen, select **Take picture** and then align your face with the dotted red line displayed on the screen. The dotted line will turn green once your face is recognised.
  - Your entire face must be visible to the camera. Make sure the face is brightly lit. Shadows prevent the camera from recognising your face accurately,
  - Keep your expression as neutral as possible. In addition, keep your mouth closed but at the same time as neutral as possible.
  - Check the box to add password entry to the sign-in process using Facial Recognition for additional security. Select Try Again to try again.
- On the Samsung Account information screen, select Save. This completes the face registration process.

# **Changing Login Method to Face Recognition**

To sign in with your Samsung Account using face recognition, navigate to **Edit profile** (**Smart Hub** > **Samsung Account** > **Edit profile**) and change the login method.

- First, you must sign in with your Samsung Account.
- 1. Navigate to Smart Hub > Samsung Account and select Edit profile.
  - To register your face using the Virtual Remote panel, press **KEYPAD** to select your active Samsung Account and then select **Edit profile**.
  - To register your face using the **Games** panel of **Smart Hub**, select the currently signed-in Samsung Account on the screen and then select **Edit profile**.
- 2. Enter the password in the password input box and then select **Done**. The edit profile screen appears.
- 3. Select Sign-in Method and change the login method to Face Recognition.
- 4. Select Done.

# Signing into Samsung Account with Your Face

- 1. Navigate to Smart Hub > Samsung Account and select Log In.
  - Press KEYPAD on Samsung Smart Control, and select Sign In to access the Sign In screen,
  - From the Games panel of Smart Hub, select Sign In.
- 2. Choose your Samsung Account,
- 3. Face towards the TV camera. If you have set the login method to face recognition, the TV will automatically match your face with your Samsung Account. If recognition fails, try again.
  - Password entry is required when logging into accounts that have been configured to require password entry during face registration.
  - The user's entire face must be visible to the camera, Make sure the face is brightly lit. Shadows prevent the camera from recognising your face accurately.
  - Keep your expression as neutral as possible. In addition, keep your mouth closed but at the same time as neutral as possible.
  - Even if more than one registered face matches your face, the TV signs you in with the matching face's account.

# Digital Broadcast Information at a Glance

### Broadcasting > Guide (Try Now

The Guide provides an overview of each digital channel's programme lineup. You can check the programme schedules and set up a Schedule Viewing or Schedule Recording.

Press GUIDE to launch the guide,

The information in the Guide is for digital channels only. Analogue channels are not supported.

# Using the Guide

Move to the programme schedule and then press and hold the Enter button. The following options are available:

Changing the Channel List

If you select Channel Filter, you can change the channels displayed in the channel lists.

Navigating the Programme Schedule

Press to the ∢, > button to navigate the programme schedule by 24 hours. You can only view the future programme schedule.

It is available for moving the page using the  $\wedge$ ,  $\vee$  button.

Moving to the Schedule Manager

You can move to the Schedule Manager screen,

Adding Favourites

Click Edit Favourite Channels to add the selected programme to the Favourites.

Viewing Detailed Information

View detailed information about the selected programme. The programme information may vary depending on the type of incoming signal and may not be available at all for certain programmes.

- Select a current programme on another channel and select View Details to Watch or Record the programme,
- Select an upcoming programme and select View Details for Schedule Viewing or Schedule Recording.

# **Checking the Current Programme Info**

While watching TV, select INFO to view information about the current programme.

- In order to view the programme info, you must first set the TV's clock. Set the Clock (System > Time > Clock).
- The programme information may vary depending on the type of incoming signal and may not be available at all for certain programmes,

In addition, select right button to view information about the next programme, and press enter, to set up a **Schedule Viewing** or **Schedule Recording** for the upcoming programme.

# Change the Broadcast Signal

Broadcasting > Aerial (Try Now)

Choose your preferred method of receiving digital broadcasts.

# Digital Signal Info and Strength

Support > Self Diagnosis > Signal Information (Try Now)

Select Support > Self Diagnosis > Signal Information. Displays the digital channel's signal information and strength.

- If your TV is attached to a separate, over-the-air antenna, you can use the signal strength information to adjust the antenna for increased signal strength and improved HD channel reception.
- This is only available for digital channels.

# **Recording Programmes**

Availability depends on the specific model and area.

You can record current and upcoming programmes using a USB device instead of a video recorder,

However, this is only available for digital channels. The bicon appears next to programmes and channels for which a **Schedule Recording** has been set.

- We recommend a USB hard disk drive with a minimum speed of 5,400rpm for TV recording. USB memory sticks are not supported.
- Read all precautions before using recording.

# Creating a USB Recording Device

### ) > On TV > Recorded TV or ) > MULTIMEDIA > USB Drive

In order to record programmes on a USB device connected to the TV, the device must first be formatted for the TV. Use the **Format Device** option to prepare the USB device.

- Formatting a USB device erases all data contained on the device. Back up the data before proceeding. Samsung will not be held responsible for damaged or lost files.
- 1. Run the Smart Hub and then choose Recorded TV from the bottom of the On TV screen.
- 2. Select Format, and then select Format Device. This will bring up the Format Device screen and allow you to format the device for TV recordings.
- 3. Once formatting is complete, the USB device is tested to see if it has been properly formatted. You will be able to start using the device after the test is completed. If the device fails the test, it means that this device cannot be used to record TV.

## Managing USB Recording Devices

You can use the following to manage USB recording devices.

- Run the Smart Hub and then choose Recorded TV from the bottom of the On TV screen or USB Drive from the bottom of the MULTIMEDIA screen. A list of connected devices appears. A list of connected devices appears.
- Select a USB recording device from the list. The list of recordings contained on the device appears.
- 3. Select Options from the top of the screen and then Manage Devices. The Manage Devices screen appears.

The following options are available from the Manage Devices screen:

- Format Device: Formats the USB device for TV recordings.
- Check Device: Check the malfunctions of USB device. If the USB have a problem, try to recover.
- Device Performance Test: Tests the performance of the USB device. This test tells you whether
  the USB device can be used for TV recordings.
- Default Recording Device: If there are multiple USB recording devices connected to the TV, use
  this option to specify the default device.

## **Recording Programmes**

You can record current and upcoming programmes.

## **Instant Recording**

Press the REC button to begin recording the current programme right away.

### The Instant and Schedule Recording options from the Guide

Select a current programme from the Guide and then select INFO.

You can instantly start recording the programme. Alternatively, select a programme that will air in the future.

## The Instant and Schedule Recording options from the Programme Info

Select INFO to display information about the current programme. In the information screen, select a programme that is currently airing to start recording it right away. Alternatively, press <, > button and select a programme that will air in the future to record it.

## The Schedule Recording option on a Specified Date and Time

- 1. Select Broadcasting > Schedule Manager.
- Select Schedule from the Schedule Manager to bring up a pop-up menu, Select Schedule Recording.
- Specify the Aerial, Channel, Repeat, Start Time, and End Time options for the programme you
  want to record, and then select OK to finish.

## Buttons and Functions Available While Recording a Programme

Press enter while recording a programme. The following buttons will appear as well as the recording progress bar,

#### Information

This displays detailed information about the programme being recorded,

The programme information may differ depending on the broadcasting signal and may not be available at all for certain programmes.

#### Recording Time

You can select the recording time.

#### Stop Recording / Go to Live TV

You can stop recording. / You can watch the live TV while watching a recorded programme.

#### Rewind / Fast Forward

Pressing these buttons decreases or increases playback by up to max 5 steps. To restore normal playback speed, select Play.

#### Pause / Play

Pause/resume video.

#### Channel List

You can view the channel list.

#### Tools

You can launch the **Tools** menu. The **Tools** menu provides functions that you can use while watching a recorded programme.

# Managing the Schedule Recording List

#### **Broadcasting > Schedule Manager**

You can change the settings of scheduled recording sessions or cancel scheduled sessions altogether.

## **Deleting Schedule Recording Sessions**

You can delete scheduled recording sessions.

- 1. Select Broadcasting > Schedule Manager.
- 2. Select a session from the Schedule Manager. A pop-up window appears.
- 3. Select **Delete**. This cancels the selected recording session.

## **Editing Schedule Recording Sessions**

You can change the settings of scheduled recording sessions.

- 1. Select Broadcasting > Schedule Manager.
- 2. Select a session from the Schedule Manager. A pop-up window appears.
- 3. Select Edit and change the settings of the selected session.
- 4. Once finished, select **OK**. This applies the changes you made to the selected recording session.

## **Viewing Recorded Programmes**

Availability depends on the specific model and area.

### ) > On TV > Recorded TV or ) > MULTIMEDIA > USB Drive

Recorded broadcasts can be viewed using the **Recorded TV** option at the bottom of the **On TV** screen or the **USB Drive** option at the bottom of the **MULTIMEDIA** screen.

- Run the Smart Hub and then choose Recorded TV from the bottom of the On TV screen or USB Drive from the bottom of the MULTIMEDIA screen.
- 2. Select a USB recording device. A list of recordings appears.
- 3. Select a recording file from the list or select ▶ to play the selected file.

## Available Buttons and Features while Playing Recordings

Press enter, Playback controls will appear, To hide the controls, press Return,

Buttons that appear are different depending on the file being played.

#### Zoom

You can pause the current file (recorded programme) and zoom in on one of 9 different sections of the screen.

You can only use this function for programmes recorded in Football Mode.

#### Stop

Stop the playing files(recorded programme) and then, move the storage files(recorded programme).

#### Pause / Play

Pause the file (recorded broadcast) or resume if already paused.

When the video is paused, you can use the following functions. However, audio will not be heard while the video is paused.

- Step: Press II to scan the paused video one frame at a time.
- Slow Motion: The button plays the video back at 1/4 the normal speed.

#### Rewind / Fast Forward

Rewind or Fast Forward the recording file (recorded programme). Repeatedly select the button to make the rewind/fast forward speed faster by up to max 5 steps. To restore normal playback speed, press the button.

#### Previous / Next

To play the previous file (recorded programme), press we twice. Selecting we once reloads the current video from the beginning.

To play the next file (recorded programme), press ...

This function is not available when the Programme is recorded in Football Mode.

### Highlights Player

Select Highlights Player to view highlights from the current recording.

This feature is only available for programmes that were recorded in Football Mode and along with highlight data have been saved.

#### Live TV

This function enables the PIP feature so that you can watch a live programme through PIP.

- Channels cannot be changed.
- You can only use this function for programmes recorded in Football Mode.

## • Tools

Function	Description
Search	Search Scene: This will take you to a scene in the video.  Search Scene cannot be used if 1) the extraction of the thumbnails from the file (Recorded broadcast) being played back is not finished, 2) playing back a file with audio only (recorded broadcast), or 3) the duration of the recorded file (recorded broadcast) is less than 60 seconds.  Search Titles: Select and play a different file located in the same folder.  Search Time Bar: Press <, > button to scan through the file in 1-minute increments or enter a specific time value to jump to that point in the video.
Subtitle Settings	Subtitle: Turn the subtitles On or Off. Subtitle Language: Used to change the language.
Repeat Mode	This changes the repeat mode. Choose Repeat One to repeat playing the current file and Repeat All to repeat playing all files contained in the same folder.
Picture Size	Used to change the size of the screen. The supported picture sizes vary depending on the video.
Picture Mode	Change the Picture Mode setting.
Sound Mode	Used to change the Sound Mode.
Select Speakers	Choose a speaker to play the audio.
Audio Language	Choose a desired audio language. This option works only when the video supports multi-track sound.
Information	Displays detailed information about the current file.

# **Managing Recorded Files**

Availability depends on the specific model and area.

### ) > On TV > Recorded TV or ) > MULTIMEDIA > USB Drive

Select Recorded TV at the bottom of the On TV screen or USB Drive at the bottom of the MULTIMEDIA screen to lock/unlock, rename, delete, and generally manage the recording files.

- 1. Run the Smart Hub and then choose Recorded TV from the On TV screen or USB Drive from the bottom of the MULTIMEDIA screen.
- 2. Select a USB recording device. A list of recordings appears.

## **Saved File List Features**

#### Sorting the Saved File List

Sorting with **Sort by**: Select **Sort by** at the top of the screen and then select a viewing mode. The list is sorted based on the selected viewing mode.

Sorting with Filter: Select Filter at the top of the screen and then select a filter. The list is refreshed to only show files that match the selected filter.

#### Options

Function	Description
Play Selected	Select files from the file list and then select Play. You can create a playlist.
Lock	To prevent to delete the files (recorded program), you can lock the files (recorded program). This locks all the selected files.
Unlock	Use this option to unlock any locked files. Select the files and then select Unlock. This unlocks all selected files.
Delete	Deletes recording files. Select the files and then select Delete. This deletes all selected files.
Rename	Renames the file. Enter the new name using the keypad and then select <b>Done</b> to finish. The new name can be up to 29 characters long.
Index	When navigating a large number of media items, select a character. Media items starting with that character appear.
Manage Devices	Used to manage USB recording devices connected to the TV.

# Setting Up a Schedule Viewing

Configure the TV to show a specific channel or programme at a specific time and date. The 🕒 icon appears next to programmes that have been configured for a Schedule Viewing.

To set up a Schedule Viewing, you must first set the TV's clock. Go to Clock (System > Time > Clock),

# Setting Up Schedule Viewing

## **Digital Channel Schedule Viewing**

You can set up Schedule Viewing for programmes on digital channels on the following screens:

- The Guide Screen
  - Select an upcoming programme from the Guide to set up a Schedule Viewing for it.
- The Programme Info Screen

Select INFO to display information about the current programme. From the programme information screen, select right button to view information about the next programme, and press enter, to set up a Schedule Viewing or Schedule Recording for the upcoming programme.

## **Analogue Channel Schedule Viewing**

## Broadcasting > Schedule Manager (Try Now)

The Schedule Viewing function for programmes on analogue channels can be set up by specifying the time and date.

- 1. Select Broadcasting > Schedule Manager.
- 2. Select Schedule from the Schedule Manager to bring up a pop-up menu, Select Schedule Viewing.
- 3. Specify the Aerial, Channel, Repeat, and Start Time options for the programme you want to watch and then select OK to finish.

# Managing the Schedule Viewing List

#### **Broadcasting > Schedule Manager**

You can change the settings of Schedule Viewing sessions or cancel scheduled sessions altogether,

## **Deleting Schedule Viewing Sessions**

You can delete Schedule Viewing sessions.

- 1. Select Broadcasting > Schedule Manager.
- 2. Select a session from the Schedule Manager. A pop-up window appears.
- 3. Select **Delete**. This cancels the selected viewing session.

## **Editing Schedule Viewing Sessions**

- You can change the settings of Schedule Viewing sessions. Select Broadcasting > Schedule Manager.
- 2. Select a session from the Schedule Manager. A pop-up window appears.
- 3. Select Edit and change the settings of the selected session.
- 4. Once finished, select OK. This applies the changes you made to the selected viewing session.

# **Using Timeshift**

Availability depends on the specific model and area.

Timeshift lets you pause and rewind live TV as you would a DVD. Timeshift is only available for digital channels and activating Timeshift disables the Broadcasting option.

#### Timeshift requirements:

- A USB recording device must be connected to the TV in order to use Timeshift,
- We recommend a USB hard disk drive with a minimum speed of 5,400rpm for use with the TV's Timeshift feature. USB memory sticks are not supported.
- Read all precautions before using the Timeshift function.

Press ▶ while watching TV to activate the **Timeshift** function. This activates **Timeshift** and displays a progress bar and the following buttons at the top of the screen:

#### Information

Displays detailed information about the current programme.

- The programme information may vary depending on the type of incoming signal and may not be available at all for certain programmes,
- This button is only available while watching a live programme.

#### • Go to Live TV / Stop Timeshift

Watches the live TV or Exits the Timeshift. / You can watch the current programme by selecting this button while watching a recorded programme.

#### Pause

Pauses the screen.

The following features are available while paused. However, audio is not supported while the video is paused.

- Step: " Scans the paused video one frame at a time.
- Slow Playback: Select ✓ / → to play the video back at 1/4 the normal speed.

### Rewind / Fast Forward

Slows down or speeds up playback by a factor of up to 5. To restore the normal playback speed, press >.

Fast Forward cannot be used while watching the Current Programme.

#### Channel List

Displays the channel list,

#### Tools

You can launch the Tools menu. Open the Tools menu to access the context menus available in Timeshift mode.

# **Using the Channel List**

### Broadcasting > Channel List Try Now

Launch the Channel List while watching TV to change channels or to see what's on other channels.

Select a channel from the **Channel List** to jump to it right away. To quickly scroll through the list, use the channel up/down buttons. This moves the focus one page at a time.

The Channel List screen contains the following icons:

An analogue channel

A favourites channel

A locked channel

#### Using Options

Press \( \) button to select \( \text{Options} \). The following options are available:

Function	Description
Aerial	Choose between Terrestrial, Cable, and Satellite.  Availability depends on the specific model and area.
Category	If you select a Category, its channels appear in the list among the TV's channels.
Sorting	Sort the list by Channel Number or by Name (Digital channels only).
Genre	Sort the list to include channels of the selected genre only. However, Genre can only be used channels contain the genre information.  Check the network and make sure the TV is connected to the Internet. Your TV needs to be connected to the Internet in order to receive the channel's genre information.
Edit Favourites	Designate favourites channels.

#### . Changing to Favourites

Press > button to select Favourites 1 through Favourites 5. This shows the selected list's channels. However, a Favourites list can only be selected if it contains at least one favourites channel. If you haven't created a Favourites list yet, you need to create one first.

# Registering, Removing, and Editing Channels

## Broadcasting > Edit Channel Try Now

Remove channels from the index of channel restore removed channels, and rename analogue channels. The **Edit Channel** screen icons indicate the following:

• An analogue channel

A favourites channel

A locked channel

# Registering and Removing Channels

#### **Broadcasting > Edit Channel**

## Removing Registered Channels

Remove registered channels from the index.

- Select the channels you want to remove. Unselect channels by choosing them again. To select all
  the channels, select Options from the bottom of the screen and then select Select All from the
  list.
- Once you have made your selection, select Delete from the bottom of the screen to remove the selected channels.

## **Editing Registered Channels**

### **Broadcasting > Edit Channel**

Select **Options** at the bottom of the screen to access the following options. However, the available options may vary depending on the broadcast signal.

Select All

Selects all channels displayed in the Edit Channel screen.

Sorting

(Digital channels only)

Change the list ordered by Channel Name or Number.

Aerial

Choose between Terrestrial, Cable or Satellite.

Availability depends on the specific model and area.

Category

If you select a Category, its channels appear in the list among the TV's channels.

Edit Favourites

Organise favourites lists to find favourite channels and switch between channels more easily.

#### Rename channel

Rename Analogue Channels. The new name can be up to 5 characters long.

#### Channel Info

Check the information of the channel.

#### Information

View detailed information about the current programme.

# **Enabling/Disabling Password Protection on Channels**

### **Broadcasting > Edit Channel**

You can lock channels you don't want your children to view.

To enable password protection, set Channel Lock to On. First, navigate to Broadcasting > Channel Lock and set it to On. (Try Now)

# **Locking/Unlocking Channels**

Select channels from the Edit Channel screen and then select Lock or Unlock at the bottom of the screen. When the password entry window appears, enter the password. This locks or unlocks the selected channels.

## **Edit Channel Number**

Availability depends on the specific model and area.

#### **Broadcasting > Edit Channel Number**

Use this to change channel number. When channel number is changed, channel information is not updated automatically.

# **Creating a Personal Favourites List**

## **Broadcasting > Edit Favourites** (Try Now

You can designate frequently watched channels as favourites. Favourites channels are highlighted in the Edit Channel and Channel List screens with the ♥ symbol. You can create up to 5 favourites channel lists.

# Registering a Channel as Favourites

#### **Broadcasting > Edit Favourites**

## Registering the Current Channel as a Favourites

Add the current channel to a Favourites list.

- 1. Select TOOLS while watching TV to display a list of options, Select Edit Favourites from the list.
- 2. From the pop-up window, select all the Favourites lists you want to add the current channel to and then select **OK**.
- 3. This adds the current channel to the selected Favourites list(s), Select OK.

### Registering Multiple Channels as Favourites

It's possible to register multiple channels as favourites at the same time.

- 1. Select Broadcasting > Edit Favourites.
- Select Category from the bottom of the screen to change the channel list to the one containing that channels you want to register,
- Select the channels from the list in the middle of the screen.
- 4. Select Change Fav. and then change the Favourites 1 to the Favourites 5 you want to use.
- 5. Select Add.

# **Viewing Favourites List Channels Only**

It's possible to flip through Favourites list channels using only the channel up/down buttons.

- A Favourites list can only be selected if it contains at least one favourites channel,
- 1. Run Channel List, (Broadcasting > Channel List).
- 2. Press > button to select Favourites 1 through Favourites 5.
- Choose a channel from the selected Favourites list. This changes the channels and Channel List changes to the selected Favourites channel.

## **Editing a Favourites List**

#### **Broadcasting > Edit Favourites**

You can rename and edit Favourites lists.

## **Edit Favourites Features**

Select Options from the bottom of the Edit Favourites screen to access the following options:

Copy to Favourites

Copy channels from one favourites channels list to another.

This can only be used when the focus has selected a channel registered to a Favourites list.

#### Rename Favourites

Rename an existing favourites channels list.

This can only be used when the focus has selected a channel registered to a Favourites list.

#### Sorting

Change the list ordered by Channel Name or Number. This function is not available on analogue channel.

#### Aerial

Choose between Terrestrial, Cable or Satellite.

Availability depends on the specific model and area.

#### Edit Channel

You can manage the channels saved on the TV.

#### Information

View detailed information about the current programme.

## Removing Registered Channels from a Favourites List

Remove channels from a favourites channels list.

- 1. Select Change Fav. at the bottom of the screen and then change the Favourites list to the Favourites list you want to use.
- 2. Select the channels you want to remove from the selected Favourites list.
- 3. Select Delete.

## Rearranging a Favourites List

Rearrange the order of the channels in a Favourites Channels List,

- 1. Select Change Fav. at the bottom of the screen and then change the Favourites list to the Favourites list you want to use.
- 2. From the selected Favourites list, select the channels you want to rearrange.
- 3. Select Change order from the bottom of the screen and then rearrange the selected channels. Press enter to finish,

### Renaming a Favourites List

Rename an existing favourites channels list.

- Select Change Fav. at the bottom of the screen and then change the Favourites list to the Favourites list you want to use.
- 2. Select Options. A list appears.
- 3. Select Rename Favourites from the list. A pop-up window appears. Rename the list in the pop-up window. The new name can be up to 20 characters long.

## Copying a Favourites List to a Different Favourites List

Copy channels from one favourites channels list to another,

- 1. Select Change Fav. and then change the Favourites list on the side of the screen to the Favourites list you want to use.
- From the Favourites list displayed on the side of the screen, select all the channels you want to copy.
- 3. Select Options, A list appears,
- 4. Select Copy to Favourites from the list, A pop-up window appears.
- 5. From the pop-up window that appears on the screen, select the Favourites lists you want to copy the selected channels to. This copies the selected channels to the selected Favourites lists.
  - Copy to Favourites is only available when there are channels in the Favourites list.

# Adding Realism to Sports

Availability depends on the specific model and area.

## System > Football Mode (Try Now

Football Mode enables optimal picture and sound settings for sports events, making them appear and sound as if you were actually there. In addition, it will be possible to use video recording and time shift functions at the same time while watching a sports event and manually or automatically designated highlight scenes if a recording device is connected to the TV when you are using Football Mode.

- For more information about recording a programme and using a recording device, refer to the "Recording Programmes" section.
- For more information about the "Time Shift" feature, refer to the "Using Timeshift" section.
- Whether Football Mode or Soccer Mode is displayed depends on the area.
- Using the colour buttons may be restricted in **Soccer Mode** while using the **Data Service**.

# **Enabling Football Mode**

#### System > Football Mode > Football Mode

Select System > Football Mode and then set Football Mode to On. Picture and sound settings of the TV are automatically optimised for sports events.

- Enabling Football Mode changes the Picture Mode to Stadium and the Sound Mode to Stadium, and disables some Picture and Sound menus.
- Press while watching TV to activate/deactivate Football Mode. If is not available, then use TOOLS to activate/deactivate Football Mode.

# **Extracting Highlights Automatically**

#### System > Football Mode > Auto Highlights

Select System > Football Mode and set the Auto Highlights to On. You can set the TV to automatically save highlights without user intervention.

However, Auto Highlights is not available with these TV operations:

- Recording two channels simultaneously
- When Audio Description is set to On
- Switching the input signal using the SOURCE button
- When 3D mode is active
- The Auto Highlights performance depends on the signal characteristics.
- It is advisable to use **Auto Highlights** only while watching a soccer game. Using this for other sporting events may display irrelevant picture frames.

## **Functions Available in Football Mode**

Press enter. The following buttons will appear.

#### Zoom

You can pause the current video and zoom in on one of 9 different sections of the screen. Pan the zoomed-in image using  $\wedge$ ,  $\vee$ ,  $\langle$ ,  $\rangle$  buttons.

- You cannot use this function when watching a 3D channel or when PIP or MULTIMEDIA is active.
- When the Data Service is running, the Zoom is not available,

#### Manual Highlight

Pressing this button saves 10 seconds of video leading up to that point and 10 seconds of video that follows as a highlight.

- This function can also be accessed using the **B** button.
- Available only while recording is in progress.
- Also possible to configure the TV to automatically save highlights without user intervention. Select System > Football Mode and then set Auto Highlights to On.

#### • Stop Recording / Go to Live TV

Use this button while watching a live programme to stop recording it. Use while watching a recorded programme to watch a live programme,

Available only when recording is in progress.

#### Record

Start recording the sports event being watched.

Available only with the recording function supported.

#### Rewind

Rewind the current video. Select repeatedly to increase the rewind speed by up to max 5 steps.

Available only when recording is in progress.

#### Pause / Play

Pause/resume video.

Available only when recording is in progress.

#### Fast Forward

Fast forward the current video. Select repeatedly to increase the fast forward speed by up to max 5 steps.

Available only when recording is in progress.

#### Highlights Player

Use **Highlights Player** to view manually or automatically saved highlight segments of the recording.

However, Highlights Player is not available with these TV operations:

- Recording two channels simultaneously
- When Audio Description is set to On
- Switching the input signal using the SOURCE button
- When 3D mode is active
- Available only when recording is in progress.

#### Watch Live TV at the same time

Select while viewing a recorded programme to watch live TV on a PIP window. Press once more to exit PIP mode.

However, Watch Live TV at the same time is not available with these TV operations:

- Recording two channels simultaneously
- When Audio Description is set to On
- Switching the input signal using the SOURCE button
- When 3D mode is active
- Available only when recording is in progress.
- Available only while watching a recorded programme.

#### Information

Displays detailed information about the current programme.

- Available only when recording is in progress.
- Go to Social TV / SOCIAL TV

Used to launch an SNS app.

# Viewing a Sports Event Recorded in Football Mode

View recorded sports events using the Recorded TV option in the On TV screen or the USB Drive option in the MULTIMEDIA screen.

# **TV-Viewing Support Features**

# **Showing Subtitles**

## System > Accessibility > Subtitle (Try Now)

Show subtitles. Subtitles will be displayed when watching a broadcast that supports subtitles. Switches subtitles **On** or **Off**.

- Press and hold the \$\infty\$ button on the Samsung Smart Control to turn on or off **Subtitle**.
- DVD subtitles are only available if the DVD player is connected to an external input connector.
- Subtitle Mode

Set the subtitle mode.

Subtitle Language

Set the subtitle language.

The TV cannot control or modify DVD or Blu-ray subtitles. To control DVD or Blu-ray subtitles, use the subtitle feature of the DVD or Blu-ray player and the player's remote control.

# **Subtitle Options**

#### System > Accessibility > Subtitle

Select a subtitle mode. The list of modes may vary depending on the broadcast.

• Primary Subtitle

Set the primary subtitle language.

Secondary Subtitle

Set the secondary subtitle language.

## **Changing Teletext Language**

#### **Broadcasting > Channel Settings > Teletext Language**

Availability depends on the specific model and area.

Use this to set the teletext language.

Primary Teletext

Set the primary teletext language.

Secondary Teletext

Set the secondary teletext language.

# **Digital Text**

This function is only available in UK.

### **Broadcasting > Channel Settings > Digital Text**



Availability depends on the specific model and area.

If the programme broadcasts with digital text, this feature is enabled.

MHEG (Multimedia and Hypermedia Information Coding Experts Group) An International standard for data encoding systems used in multimedia and hypermedia. This is at a higher level than the MPEG system which includes data-linking hypermedia such as still images, character service, animation, graphic and video files as well as multimedia data. MHEG is user runtime interaction technology and is being applied to various fields including VOD (Video-On-Demand), ITV (Interactive TV), EC (Electronic Commerce), tele education, teleconferencing, digital libraries and network games.

# **PIP Broadcast Viewing**

## Picture > PIP (Try Now)

Use the PIP (Picture-In-Picture) function to watch TV in a small window while also watching images from an external source such as a DVD player, a Blu-ray player, or a computer in the background.

Select Picture > PIP to display the PIP settings window. This settings window contains the following options:

PIP

Activates/deactivates PIP.

Aerial

Select the PIP sub-picture broadcast signal.

Channel

Select the PIP sub-picture channel.

Size

Select the PIP sub-picture size.

Position

Select the PIP sub-picture position.

Sound Select

Select the audio source.

# Scanning for Available Channels

Availability depends on the specific model and area.

## **Broadcasting > Auto Tuning (Try Now**

Automatically scans and indexes all channels received through the TV's antenna input connector,

If there are saved channels, this feature deletes the existing list and then saves the newly scanned channels.

If the TV is connected to a cable box or satellite receiver, you do not need to do this.

- 1. Select Broadcasting > Auto Tuning.
- 2. Select **Start** when prompted. This initiates the Auto Programme function. The process can take up to 30 minutes to complete.
- Auto Tuning

Scans for channels automatically and stores them in the TV's memory.

- Cable Search Option (when the aerial was set to Cable)
  - Availability depends on the specific model and area.

Sets additional search options such as the frequency and symbol rate for a cable network search.

## Standby Auto Tuning

Availability depends on the specific model and area.

Auto-tune channels while your TV is in standby mode.

#### Wake-up Timer

Availability depends on the specific model and area.

Schedule timer to turn the TV on and scan channels automatically.

# Selecting the Broadcast Audio Options

## Broadcasting > Audio Options (Try Now)

Audio Language

(Digital channels only)

Change the default value for audio languages.

Primary Audio: Set the primary audio language.

Secondary Audio: Set the secondary audio language.

The available language may differ depending on the broadcast.

#### Audio Format

(Digital channels only)

Change a desired audio format. The supported audio format may vary depending on the broadcast programme.

# **Audio Description**

## System > Accessibility > Audio Description

(Not available in all locations) (Digital channels only)

This function handles the Audio Stream for the AD (Audio Description) which is sent along with the Main audio from the broadcaster,

- Audio Description: Turn the audio description function on or off,
- Volume: Adjust the audio description volume.

# **Genre Selection**

#### **Broadcasting > Genre Selection**

Availability depends on the specific model and area.

Turn the channel genre selection feature on or off when using the guide.

# Adult genre enabling

## Broadcasting > Adult genre enabling

Availability depends on the specific model and area.

Enables or disables all adult services. When disables, adult services will not be available.

# **Using the Channel Settings**

## **Broadcasting > Channel Settings**

# Country (Area)

## Broadcasting > Channel Settings > Country (Area) Try Now

Select your country so that the TV can correctly auto-tune the broadcasting channels. This depends on the country or region.

When the PIN input screen appears, enter your 4 digit PIN number.

Digital Channel

Change the country for digital channels.

• Analogue Channel

Change the country for analogue channels.

# **Manual Tuning**

# Broadcasting > Channel Settings > Manual Tuning (ry Now)

Scans for a channel manually and stores in the TV.

If a channel is locked using the Channel Lock function, the PIN input window appears.

This function depends on the country and region.

## When Aerial Source is set to Terrestrial or Cable

• Digital Channel Tuning

Scans for a digital channel,

- 1. Select the New.
  - **When selecting Aerial** → Terrestrial: Channel, Frequency, Bandwidth
  - When selecting Aerial → Cable: Frequency, Modulation, Symbol Rate
- 2. Select the Search. When scanning has finished, a channel is updated in the channel list.
- Analogue Channel Tuning

Scans for an analogue channel,

- 1. Select the New.
- 2. Set the Programme, Colour System, Sound System, Channel and Search.
- 3. Select the Store, When scanning has finished, a channel is updated in the channel list,

#### Channel mode

• P (programme mode)

When tuning is complete, the broadcasting stations in your area have been assigned to position numbers from P0 to P99. You can select a channel by entering the position number in this mode.

C (aerial channel mode) / S (cable channel mode)

These two modes allow you to select a channel by entering the assigned number for each aerial broadcasting station or cable channel.

# Fine-Tuning the Screen

#### Broadcasting > Channel Settings > Fine Tune (Try Now)

Available for analogue broadcasts only.

Analogue pictures can become shaky and full of noise. If this happens, you can fine-tune the signal and/or reduce noise to clear up the picture.

- 1. Select Channel Settings > Fine Tune. An adjustment bar appears on the screen.
- Make adjustments using the Samsung Smart Control until the picture clears up and then select Save or Close. Select Reset to reset the Fine-Tune operation.

# Transfer Channel List

## Broadcasting > Channel Settings > Transfer Channel List (Try Now)

Imports or exports the channel map, When the PIN input screen appears, enter the PIN,

You should connect a USB storage device to use this function.

- Import from USB: Import channel list from USB.
- Export to USB: Export channel list to USB. This function is available when USB is connected.

# **Delete CAM Operator Profile**

Availability depends on the specific model and area.

## Broadcasting > Channel Settings > Delete CAM Operator Profile

Select the CAM operator to delete.

# Satellite System

Availability depends on the specific model and area.

#### **Broadcasting > Channel Settings > Satellite System**

A set of satellite dish settings must be configured for each wanted satellite before performing a channel scan,

Satellite System is available when Aerial is set to Satellite. When the PIN input screen appears, enter the PIN.

- Satellite Selection: You can choose the satellites for this TV.
- LNB Power: Enables or disables the power supply for the LNB.
- LNB Settings: Configures the outdoor equipment.

Satellite: Selects the satellite for receiving digital broadcasts.

Transponder: Selects a transponder from the list or adds a new transponder.

DiSEqC Mode: Selects DiSEqC mode for the selected LNB.

Lower LNB Oscillators: Sets the LNB oscillators to a lower frequency.

Upper LNB Oscillators: Sets the LNB oscillators to a higher frequency.

Tone 22 kHz: Selects the Tone 22 kHz depending on the LNB type. For a universal LNB it should be Auto.

Positioner Settings: Configures the aerial positioner.

Positioner: Enables or disables the positioned control.

Positioner Type: Sets the positioned type between DiSEqC 1.2 and USALS (Universal Satellite Automatic Location System).

- My Longitude: Sets the longitude for my location.
- My Latitude: Sets the latitude for my location.
- Satellite Longitude Settings: Sets the longitude of user defined satellites.

User Mode: Sets the position of satellite aerial according to each satellite.

If you store the current position of satellite aerial according to a certain satellite, when the signal of that satellite is needed, the satellite aerial can be moved to pre-populated position.

- Satellite: Selects the satellite to set the position for
- Transponder: Selects a transponder from the list for signal reception.
- Moving Mode: Selects the movement mode between discrete and continuous movement.
- Step Size: Adjusts the step size degrees for the aerial rotation. Step Size is available when Moving Mode is set to Step.
- Go To Stored Position: Rotates the aerial to the stored satellite position.
- Aerial Position: Adjusts and stores the aerial position for the selected satellite.
- Store Current Position: Stores current position as the selected positioner limit.

**Installer Mode**: Sets limits to the scope of movement of satellite aerial or reset the position. Generally, installation guide uses this function.

- Limit Position: Selects the direction of the positioner Limit.
- Aerial Position: Adjusts and stores the aerial position for the selected satellite.
- Store Current Position: Stores the current position as the selected positioner Limit,
- Go to zero: Moves the aerial to the reference position.
- Reset positioner limit: Allows the aerial to rotate over the full arc.
- Reset all settings: All satellite settings will be reset to the initial values.

# Common Interface

Availability depends on the specific model and area.

#### **Broadcasting > Common Interface**

#### Cl Menu

Enables the user to select from the CAM-provided menu. Select the CI menu based on the menu PC Card.

#### CAM video transcoding

You can configure the setting to transcode the video codec from the CAM automatically. Turn it Off if you do not want to use it.

You must use a CAM that supports video codec transcoding.

## Application Info

View information about the CAM inserted into the CI slot and about the "CI or CI+ CARD" inserted into the CAM. You can install the CAM any time, with or without the TV turned on.

- 1. Purchase a CI CAM module at your nearest dealer or by phone.
- 2. Firmly insert the "CI or CI+ CARD" into the CAM in the direction of the arrow.
- 3. Insert the CAM with the "CI or CI+ CARD" into the common interface slot, in the direction of the arrow so that it aligns parallel with the slot.
- 4. Check if you can see a picture on a scrambled signal channel,

#### • CICAM PIN Manager

Manage CICAM (Common Interface Common Access Module) PIN. Save PIN or change stored PIN and then set other PIN options.

# Changing the Picture Mode and Adjusting the Picture Quality

# Choosing the Right Picture Mode for the Viewing Environment

# Picture > Picture Mode (Try Now)

The following picture modes utilise different contrast and brightness settings to provide the best viewing experience for the environment.

When connected to a PC via an HDMI-to-DVI cable, only the **Standard** and **Entertain** modes can be chosen,

#### Dynamic

If the ambient lighting is too bright and makes the screen blurry, use this mode to make the picture clearer.

## Standard

This is the default mode suitable for most environments.

#### Natural

This mode is useful for reducing eye strain.

Availability depends on the specific model and area.

#### Movie

Appropriate for darkened rooms, for watching movies, and when experiencing eye fatigue. Darkens the screen and reduces glare.

#### Entertain

Sharpens images for a more dynamic viewing experience.

This mode is only available when connected to a computer via an HDMI-to-DVI cable.

# Adjusting the Picture Quality for Each Picture Mode

## Picture > Backlight, Contrast, Brightness, Sharpness, Colour or Tint (G/R)

Select one of the settings to display its slide bar. Change the adjustment value using  $\langle , \rangle$ . Change the item using  $\wedge$ ,  $\vee$ . Adjusted values are applied to the current source and picture mode.

The Colour and Tint (G/R) settings cannot be adjusted when the TV is connected to a computer via an HDMI to DVI cable.

Choose a Picture Mode and then adjust the settings.

Backlight (Try Now)

Adjusts the brightness of individual pixels. Decreasing the brightness reduces power consumption.

Contrast (Try Now)

Adjusts the screen contrast,

Brightness (Try Now)

Adjusts the overall brightness.

Sharpness (Try Now)

Sharpens or dulls the edges of objects.

Colour (Try Now)

Adjusts the overall colour saturation,

Tint (G/R) (Try Now)

Adjusts the ratio of green to red. Increase the green value to saturate the greens and the red value to saturate the reds.

Adjusted values are saved by the TV for the current source and picture mode, and remain in effect each time the source and picture mode are selected. Consequently, the TV can have different picture settings for each external source.

# Applying the Current Picture Settings to Other Input Sources

## Picture > Apply Picture Mode (Try Now)

You can apply the picture quality setting that you configured for the TV to all external devices connected to the TV or to the current source only.

To apply the setting to all external devices connected to the TV, select **All Sources**. To apply the setting to the current input only, select **Current Source**.

# Fine-Tuning Each Picture Mode (Advanced Settings)

## Picture > Advanced Settings (Try Now)

Select Picture > Advanced Settings to fine-tune how images are displayed on the TV screen for each Picture Mode.

- Advanced Settings is only available when the Picture Mode is set to Standard or Movie,
- When the TV is connected to a computer via an HDMI-DVI cable, only White Balance and Gamma can be adjusted.

Choose a Picture Mode and then adjust the settings.

Dynamic Contrast (Try Now)

Automatically adjusts the screen contrast. Use this option to achieve the optimal contrast setting.

Black Tone (Try Now)

Adjusts the black colour depth.

Flesh Tone (Try Now)

Darkens or lightens skin tones.

RGB Only Mode Try Now

Adjusts the red, green, and blue levels individually.

Colour Space (Try Now)

Adjusts the range of colours that can be displayed on screen. Auto automatically adjusts the colour space depending on the input signal. Native applies a range that is wider than the input signal. Custom allows you to adjust the colour space manually.

The availability of **Custom** depends on the specific model and area.

# • White Balance (Try Now)

Adjusts the colour temperature of the picture to make white objects look white and the overall picture appear natural.

Availability depends on the specific model and area.

**2 Point:** Adjust each of the 3 colour's luminosity with the offset menu and the brightness with the gain menu. To restore the default values, select **Reset**.

10 Point: Adjust the white balance by adjusting the brightness of each of the 10 sections of red, green, and blue colours of the input signal. To choose a section, select a desired section in Level field.

You can use the 10 Point function only when the Picture Mode is set to Movie. Some external devices may not support this.

Adjust each colour's luminosity with the offset menu and the brightness with the gain menu. To restore the default values, select **Reset**.

Availability depends on the specific model and area.

R-Offset / G-Offset / B-Offset: Adjust each colour's (red, green, blue) darkness.

R-Gain / G-Gain / B-Gain: Adjust each colour's (red, green, blue) brightness.

## Gamma (Try Now)

Adjusts the primary colour intensity.

## Motion Lighting (Try Now)

Adjusts the brightness in response to on-screen movements to reduce power consumption.

- This feature is only available when the **Picture Mode** is set to **Standard** and is not available in 3D mode.
- Adjusting the Contrast, Brightness, and other picture quality settings deactivates the feature.

# Adjusting the Picture for Easier Viewing (Picture Options)

## Picture > Picture Options (Try Now)

Select Picture > Picture Options to make additional adjustments for an easier viewing experience.

When the TV is connected to a computer via an HDMI-DVI cable, only Colour Tone can be adjusted.

Choose a Picture Mode and then adjust the settings.

Colour Tone Try Now

Adjusts the colour tone. The setting is applied on an individual **Picture Mode** basis. When a **Picture Mode** is changed, the corresponding setting will be applied automatically.

- If the Picture Mode is set to Dynamic, you will only be able to choose Cool or Standard.
- Digital Clean View Try Now

Reduces static and ghosting caused by a weak signal. Selecting **Auto Visualisation** displays the signal strength at the bottom the screen. Green indicates the best possible signal.

- Available for analogue channels only.
- MPEG Noise Filter (Try Now)

Reduces MPEG noise and improves video quality.

HDMI Black Level (Try Now)

Some external devices connected to the TV via an HDMI cable can have issues, such as low black level, low contrast, and dull colours. Use **HDMI Black Level** to adjust the black level to compensate,

This is only available when using an external device connected to the TV via an HDMI connector,

# Film Mode (Try Now)

Optimises the picture quality for movies. Select this mode for watching movies.

This feature is only available when watching TV or when the input signal is AV, Component (480i, 1080i), or HDMI (1080i).

## Motion Plus (Try Now)

Availability depends on the specific model and area.

Removes blurring and judder from scenes with rapid movement. If you select **Custom**, you can configure Blur Reduction and Judder Reduction manually and set **LED Clear Motion** on for a sharper LED image.

- The Info screen on your TV displays the resolution and frequency of the incoming signal (60Hz), but not the frequency the TV is generating for the image it is displaying by using **Motion Plus** function.
- If noise occurs on the screen, please set up the Motion Plus to Off. If Motion Plus is Custom, you can set up the Blur Reduction, Judder Reduction, LED Clear Motion and Reset manually.
- If LED Clear Motion is On at 60Hz video signal, the screen may flicker.

Blur Reduction: Adjusts the blur reduction level from video sources.

Judder Reduction: Adjusts the judder reduction level from video sources when playing films.

LED Clear Motion: Removes drag from fast scenes with a lot of movement to provide a clear picture.

**Reset**: Reset the custom settings to the factory defaults.

If you have Motion Plus on, and then bring up the INFO screen, the INFO screen displays the resolution and frequency of the incoming video signal (60Hz). This frequency is not the same as the frequency of the picture the TV is displaying when Motion Plus is on.

#### LED Clear Motion

Availability depends on the specific model and area.

Removes drag from fast scenes with a lot of movement to provide a clear picture,

If LED Clear Motion is On at 60Hz video signal, the screen may flicker.

#### Cinema Black

In **Movie** mode, this feature dims the top and bottom areas of the video image to provide a more immersive viewing experience.

Availability depends on the specific model and area.

# Viewing in 3D

Availability depends on the specific model and area.

#### Picture > 3D

The 3D option lets you view 3D media content and broadcasts. You will need to wear Samsung 3D Active Glasses to play 3D content. IR-type Samsung 3D Active Glasses and third-party 3D glasses are not supported.

- Carefully read the health and safety information concerning 3D viewing before viewing 3D content. Refer to the "3D Precautions" section for more information.
- Whether 3D video is displayed in true HD is usually determined by the quality of the content.

# Starting 3D

- 1. Play 3D content or turn on a channel that's showing a 3D broadcast.
- 2. Put the Samsung 3D glasses on and then select 3D, 3D viewing is enabled.

The ideal viewing distance is three times the height of the screen or more. 3D images may not appear if you do not adhere to the recommended viewing angle or distance.

The 3D feature may not work properly if there is another 3D product or an electronic device running nearby. If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.

The left and right 3D images may initially overlap when the TV is turned on. It takes a moment for the display to optimise for the overlapping to go away.

There are several restrictions when using 3D TV:

- Launching Smart Hub automatically disables 3D mode.
- PIP cannot be used.
- Certain **Picture** options are disabled.

# Changing the 3D Mode

#### Picture > 3D > 3D Mode

- 1. Launch 3D and then select 3D Mode under Picture > 3D.
- Choose from the 3D modes that appear on the screen. Supported 3D Mode may vary depending on the 3D content.
  - **3D Mode** is automatically configured for most 3D content.

The following 3D Mode is available. However, mode availability may vary depending on the 3D content's format,

- The supported resolutions vary for each mode, Refer to the "Supported Resolutions for each 3D Mode" section for more information,
- Off (Off)

Deactivates 3D viewing.

• Normal)

Converts normal images to 3D images.

- Some formats do not support this mode.
- \*\* (L/R)

Splits a single image into left and right overlapping images to create the 3D effect.

(T/B)

Splits a single image into top and bottom overlapping images to create the 3D effect.

# Adjusting the 3D Effect

#### Picture > 3D

Configure the viewpoint, depth, and other 3D settings for a custom viewing experience.

Adjusting the 3D perspective

Select Picture > 3D > 3D Perspective. Use the adjustment bar shown on the screen to adjust the perspective.

Adjusting the 3D Depth

Select Picture > 3D > Depth. Use the adjustment bar shown on the screen to adjust the depth.

This option cannot be used if 3D mode is set to (L/R) or (T/B).

Reversing the Left/Right 3D Images

Select Picture > 3D > L/R Change. This option is used to reverse the left and right images.

Displaying 3D Content in 2D

Select Picture > 3D > 3D → 2D. This option is used to enable 2D viewing of 3D content.

This function is not available if 3D mode is set to (Normal) or (Off).

# **Picture Support Functions**

# **PIP Broadcast Viewing**

## Picture > PIP

Use the PIP ("Picture-In-Picture") function to watch TV in a small window while also watching content from a DVD player, Blu-ray player, computer, or a different external device in the background.

Select Picture > PIP to display the PIP settings window. This settings window contains the following options:

#### PIP

Activates/deactivates PIP.

#### Aerial

Select the PIP sub-picture broadcast signal.

#### Channel

Select the PIP sub-picture channel.

#### Size

Select the PIP sub-picture size,

#### Position

Select the PIP sub-picture position.

#### Sound Select

Select the audio source.

# Changing the Picture Size and Position

# Choosing the Right Screen Size

## Picture > Picture Size > Picture Size (Try Now)

Most TV programmes and videos are displayed in full screen, but some programmes and videos are larger or smaller. Change the screen size for such programmes and videos so that the picture fits the screen better,

Supported screen sizes vary depending on the input signal, Refer to the "Picture Sizes and Input Signals" section for more information about supported screen sizes.

#### Auto Wide

Automatically adjusts the picture size to the 16:9 aspect ratios.

• 16:9

Set the picture to the 16:9 wide-screen format.

Wide Zoom

Magnifies the picture size more than 4:3. A magnified picture can be moved up and down.

Zoom

Magnifies the 16:9 wide pictures vertically to fit the screen size. A magnified picture can be moved up and down,

Zoom is not available when Picture Size set to Wide Zoom,

4:3

Sets the picture to basic 4:3 mode.

⚠ Do not leave the TV in 4:3 mode for an extended period. The dark borders displayed on the left and right / top and bottom of the screen may cause image retention. This phenomenon can appear on LED and PDP TVs. (Screen burn - this phenomenon can appear on PDP TVs.) This is not covered by the warranty.

#### Screen Fit

Displays the full image without any cutoff.

Smart View 1

Reduces a 16:9 picture by 50%.

Smart View 2

Reduces a 16:9 picture by 25%.

# Adjusting the Screen Position

#### Picture > Picture Size > Zoom/Position or Position

Adjusts the screen position.

This option is only available with Picture Size set to Wide Zoom, Zoom, or Screen Fit. When the TV is tuned to a digital channel, the screen position cannot be adjusted if the Picture Size is set to Screen Fit.

- To adjust the screen's position, select Picture > Picture Size > Zoom/Position or Position. A popup window appears.
- 2. Select **Zoom** or **Position** again from the pop-up window.
- Adjust the screen. Once done, select Zoom or Position and then Close. Select Reset to reset the screen position.

## Adjusting the 4:3 Screen Size

## Picture > Picture Size > 4:3 Screen Size (Try Now)

Available only when picture size is set to Auto Wide. You can determine the desired picture size at the 4:3 WSS (Wide Screen Service) size or the original size. Each European country requires different picture size.



Not available in Component or HDMI mode.

# Listening to Audio Only with the Screen Turned Off (Picture Off)

## Picture > Picture Off (Try Now

Turns off the screen and plays audio through the speakers only. To turn the screen back on, press any button other than the TV and VOLUME buttons.

# **Resetting the Picture Mode Settings**

#### Picture > Reset Picture (Try Now)

Use this option to reset the current **Picture Mode** to its factory settings. This does not affect the settings of other Picture Modes.

# Changing the Sound Mode and Using Sound Effects

# Choosing the Right Sound Mode for the Environment

# Sound > Sound Mode (Try Now)

Sound modes apply preset adjustments to the sound output, optimised for different viewing and listening circumstances.

The sound modes cannot be used when you are listening to audio through external speakers.

#### Standard

This is the normal sound mode.

#### Music

This mode emphasises normal music instead of voice.

#### Movie

This mode is calibrated to provide the best sound for movies.

#### Clear Voice

This mode emphasises voice.

## Amplify

This mode increases the overall intensity of high-frequency sounds for a better listening experience. It is designed for hearing-impaired listeners.

#### Stadium

Setting Football Mode (System > Football Mode) to On automatically configures Sound Mode to Stadium for a more realistic viewing experience.

**Stadium** cannot be selected by the user.

# **Using Sound Effects**

# Sound > Sound Effect (Try Now)

Use sound effects to alter how the TV projects sound.

#### Restrictions:

- Sound effects can only be used with the Sound Mode set to Standard.
- Sound effects cannot be used when you are listening to audio through external speakers.

Choose a Sound Effect and then adjust the settings.

DTS TruSurround HD (Try Now)

Produces sound that will make you feel like you are sitting in a movie theatre or concert hall.

DTS TruDialog (Try Now)

Increases voice intensity to make dialog clearer.

Equaliser (Try Now)

Lets you adjust the speaker balance and make bandwidth adjustments. Select **Reset** to reset the settings.

# **Sound Support Functions**

# **Selecting Speakers**

## Sound > Speaker Settings > TV Sound Output (Try Now)

This lets you choose which speakers the TV uses for audio output. To listen to the audio through the speakers of a connected receiver or home theatre only, select Receiver or Audio Out. To listen to audio through the TV's speakers and the speakers of a connected AV receiver or home theatre simultaneously, select TV Speaker. If this causes an echo effect, choose any speaker option other than TV Speaker to mute the TV speakers, or turn off the receiver or home theatre.

Using external speakers alone disables the volume button and the mute function. In addition, certain **Sound** options will also be disabled.

# Designating the TV's Installation Type

## Sound > Speaker Settings > TV Speaker > TV Installation Type

Specify the TV's installation type. Choose between **Wall Mount** and **Stand** to optimise the TV's sound automatically.

# Listening to TV Sound through Samsung Bluetooth or Wi-Fi Audio

## Sound > Speaker Settings > TV Speaker > SoundShare Settings

Connect the TV to a Samsung audio device for a richer, clearer sound,

- This option is only available for Samsung audio devices that support SoundShare.
- You can't use Bluetooth headphones, SoundShare Settings and Surround features simultaneously,

Pair the Samsung audio device using the TV's Bluetooth function. Refer to the Samsung audio device's operating manual for more information on pairing.

SoundShare Settings

#### Samsung Audio Device List

Displays a list of paired Samsung audio devices. Select a device to display its menu options. You can activate/deactivate the audio device or remove it from the list.

#### **Add New Device**

Enables/disables SoundShare. The connection signals from new devices are ignored if Add New Device is set to Off.

When listening to TV audio through a Samsung audio device, certain types of content may produce video-to-audio synching issues.

# Listening to TV Sound through Samsung Multiroom Link compatible Speakers

## Sound > Speaker Settings > TV Speaker > Multiroom Link

Configure this product for connection to a Samsung Multiroom Link compatible speaker and enjoy rich sound.

- To use this feature, at least one Samsung Multiroom Link compatible speaker must be connected.
- Sound quality may be affected by the condition of the wireless network.
- Network connection status can be negatively influenced and even can be lost, if the network environment getting worse by time,
- Activating Screen Mirroring disables Multiroom Link.
- For further details, refer to the Multiroom Link manual from the web site. (www.samsung.com > SUPPORT > Firmware Manuals & Downloads)
- The audio from each device may lag behind the video and audio of the device which is playing the source contents.
- While playing the Multi-Link Screen, you can hear the selected audio.

#### Settings

Set the configuration of Samsung Multiroom Link compatible speaker(s) you connected to the TV.

#### Multiroom Link

**Surround:** Set numbers of Samsung Multiroom Link compatible speaker(s) in a space and enjoy surround system.

Multiroom: Configure the Samsung Multiroom Link compatible speaker so that all play the same, combined audio. Channels are ignored.

**SoundBar+Surround**: If you have connected a Sound Bar, set **SoundBar+Surround** to rear speakers. The Sound Bar already includes the Center and Front Left and Right channels.

#### Volume Level

Adjust the volume of each speaker individually or all speakers at once.

#### Speaker Test

Send a test sound to each speaker to make sure your system is working properly.

#### Edit Name

You can give each speaker a name.

# **Enabling the Sound (Additional Settings)**

# Sound > Additional Settings (Try Now)

Configure additional settings for optimum audio output,

## DTV Audio Level (Try Now)

(Digital channels only)

The TV cannot freely control the volume of the digital audio that it sends to the AV receiver. Use this to set the digital audio volume at a comfortable level.

- According to the type of broadcast signal, MPEG / HE-AAC can be adjusted between -10dB and 0dB.
- To increase or decrease the volume, adjust between the range 0 and -10 respectively.

#### Audio Format, Audio Delay

This Smart TV is SPDIF-enabled. The Sony Philips Digital Interface (SPDIF) provides digital audio output to speakers and various digital devices, including A/V Receivers and home theatres.

# Audio Format (Try Now)

Selects the Digital Audio output (SPDIF) format. The available Digital Audio output (SPDIF) formats may vary depending on the input source.

## Audio Delay (Try Now)

This setting helps correct timing mismatches between the audio and video tracks when you are watching TV and listening to audio through a digital audio device. Enabling the feature displays a slide bar that you can use to adjust the delay by up to 250ms.

## Dolby Digital Comp (Try Now)

Some digital TV programmes provide 5.1-channel Dolby audio. This TV converts Dolby audio to stereo audio so that it can play the sound through the TV's speakers. There are two methods to choose from, RF is for better sound at lower volumes, and Line is for higher volumes.

# Auto Volume (Try Now)

When you change channels, video sources, or content, Auto Volume automatically adjusts the TV's volume level so that the volume level remains the same for all sources. For example, if you switch from a streaming video application to a Blu-ray player or a favourite TV channel, Auto Volume can modify the volume up to 12db to equalise the sound.

The Auto Volume function has two settings: **Normal** and **Night**. **Normal** applies a normal level of volume adjustment. **Night** applies a slightly lower volume level and is ideal for late-night TV viewing. If you want to use the volume control of a connected source device to control the sound, deactivate the Auto Volume function. When you use the Auto Volume function with a source device, the device's volume control may not function properly.

# Listening to 3D Audio in 3D Mode

Availability depends on the specific model and area.

# Sound > 3D Audio (Try Now

3D audio technology provides immersive sound that matches the pop-up effect of 3D video by using perspective in the audio depth control.

8

Only available in 3D mode.

# **Resetting All Sound Settings**

# Sound > Reset Sound (Try Now)

Use to reset all sound settings to the factory defaults.

# Setting the Time and Using the Timer

# **Setting the Current Time**

## System > Time > Clock (Try Now

Set the clock manually or automatically. Once the clock has been set, you can select the INFO button to check the current time.

The clock must be reset every time the power is disconnected.

# Setting the Clock using Digital Broadcast Info

# System > Time > Clock > Clock Mode (Try Now)

Set Clock Mode to Auto. The TV automatically downloads the correct time from a digital channel. To enable this option, the TV's Antenna jack must be connected to either an antenna or a cable output and must be receiving digital broadcasts. The accuracy of the time information received may vary depending on the channel and signal. If your TV is connected to a set-top-box or satellite box using HDMI or Component connections, you must set the time manually.

Availability depends on the specific model and area.

# If the Clock is Wrong in Auto Mode...

## System > Time > Clock > Time Offset (ry Now)

If the time set automatically is incorrect, you can offset the clock in 1-hour increments by as much as -/+ 12 hours. Select System > Time > Clock > Time Offset and offset the clock to the correct time.

- Time Offset adjusts the time through network connections and is only available if the Clock Mode is set to Auto and the TV is connected to the Internet though a local area network.
- Time Offset will adjust the time if the TV fails to receive time information through normal digital broadcast signals.

## **Setting the Clock Manually**

Manually enter the time. Set Clock Mode to Manual and then select Clock Set to enter the current time and date.

Clock Set: Set the current Date and Time.

Time Zone: Select your time zone.

This function is only available when the **Clock Mode** is set to **Auto**.

DST: Switches the DST (Daylight Saving Time) function on or off.

This function is only available when the **Clock Mode** is set to **Auto**,

**GMT**: Selects your time zone,

When Country is set to others, you can use this function.

# **Using the Timers**

# Using the Sleep Timer

## System > Time > Sleep Timer (Try Now)

This automatically shuts off the TV after a preconfigured period of time. Select System > Time > Sleep Timer. You can set the timer up to 180 minutes in 30-minute increments.

## Turning On the TV using On Timer

# System > Time > On Timer (Try Now)

Set the On Timer so that the TV turns on automatically at a chosen time. Select System > Time > On Timer. The timer configuration window appears. Configure the following settings:

The On Timer is only available if the Clock has been set.

#### Setup

Specify the dates and the duration. Use Manual to specify the days of the week.

#### Time

Set the time that the TV turns on automatically.

#### Volume

Specify the volume when the TV turns on,

#### Source

Select the signal source from the list. Specify the channel or source to be displayed when the TV turns on. To specify a USB device, a USB device must first be connected to the TV. To play media from an HDMI or Component source such as a DVD player or Blu-ray player, the device must already be turned on, and playing the media when the TV is turned on.

#### Aerial

Set the Source to TV to select a broadcast signal.

#### Channel

Set the **Source** to **TV** to select a channel.

#### Music / Photo

Set the **Source** to **USB** to choose a USB folder that contains music or photo files. Selecting both music and image files plays the music files and displays the images at the same time.

#### Restrictions:

- This feature will not function properly if the selected USB device does not contain media files or a folder has not been specified.
- The slideshow will not start if there is only one image file on the USB device.
- Folders with long names cannot be selected.
- Always use different folder names for multiple USB devices.
- Use a USB memory stick or multi-card reader. The On Timer may not work with certain battery-powered USB devices, MP3 players, or PMPs because the TV may take too long to recognise the device.

## Turning Off the TV Using Off Timer

## System > Time > Off Timer Try Now

Set the Off Timer to turn the TV off automatically at a specific time. Select **System > Time > Off Timer**. The timer configuration window appears. Configure the following settings:

The Off Timer is only available if the Clock has been set,

## Setup

Specify the dates and the duration. Use Manual to specify the days of the week.

## Time

Set the time that the TV turns off automatically.

# Using the Screen Burn Protection and Energy Saving Features

# **Preventing Screen Burn**

## System > Auto Protection Time (Try Now)

Still images can leave burned-in after-images on the screen if left for a long time. Use Screen Burn Protection to protect the screen. Select System > Auto Protection Time and then choose a time setting from the list. If a still image is shown on the screen for longer than the time you selected, the TV will automatically activate Screen Burn Protection to prevent burned-in after- images that may damage the screen.

# **Using Energy Saving Features**

## System > Eco Solution (Try Now)

Eco Solution adjusts the TV's brightness level and prevents overheating to reduce overall power consumption.

Energy Saving (Try Now)

Select a brightness setting from the list to reduce the TV's power consumption.

#### Eco Sensor

Availability depends on the specific model and area.

Automatically adjusts the TV's brightness level based on the ambient light level to reduce the TV's power consumption. If the Eco Sensor has adjusted the screen's brightness level, you can manually adjust the screen's minimum brightness level by adjusting the Min. Backlight. Changing the Picture menu's Backlight setting while Eco Sensor is running automatically disables Eco Sensor.

No Signal Power Off (Try Now)

Select a time from the list. If no signal is received for the specified duration, the TV automatically cuts off the power to reduce power consumption.

Auto Power Off Try Now

If the TV remains turned on for four hours without any user input, the TV will automatically turn off to prevent overheating.

# Using Anynet+ (HDMI-CEC)

Use Anynet+ (HDMI-CEC) to control all external devices that support HDMI-CEC using just the TV's remote control. Note that Anynet+ (HDMI-CEC) only works with the TV's remote control and not with the panel keys.

You can configure the TV's universal remote function to control third-party cable boxes, Blu-ray players, and home theatres that do not support HDMI-CEC using the TV's remote control.

#### Anynet+ Requirements:

- Anynet+ cannot be used to control external devices that do not support HDMI-CEC.
- Anynet+ devices must be connected to the TV using an HDMI cable. Some HDMI cables may not support Anynet+ (HDMI-CEC). In this case, you will need to replace the HDMI cable.
- The TV remote control may not function under certain circumstances. If this occurs select the Anynet+ device again,
- Anynet+ (HDMI-CEC) only works with external devices that support HDMI-CEC and only when those devices are either in standby mode or turned on.
- Anynet+ (HDMI-CEC) can control up to 12 compatible external devices (up to 3 of the same type).
   With home theatre systems, however, the number of systems that can be controlled is limited to one.
- To listen to 5.1-channel audio from an external device, connect the device to the TV via an HDMI cable and the device's digital audio output connector directly to the home theatre system.
- A home theatre system that has been connected to the TV using an HDMI cable and an optical cable supports 2-channel audio only, 5.1-channel audio is, however, available for digital broadcasts with 5,1-channel audio.

# Setting Up Anynet+ (HDMI-CEC)

System > Anynet+ (HDMI-CEC) (Try Now

Anynet+ (HDMI-CEC) (Try Now)

Enables/disables Anynet+ (HDMI-CEC). Set to Off to disable all Anynet+ related features. Set to On to enable all Anynet+ (HDMI-CEC) related features.

Auto Turn Off (Try Now)

When set to Yes, turns off Anynet+ (HDMI-CEC) compatible external devices when the TV is turned off.

Some Anynet+ (HDMI-CEC) compatible devices do not support this feature.

Search for Devices (Try Now)

Search for Anynet+ (HDMI-CEC) compatible devices.

# Using Anynet+ (HDMI-CEC)

# Selecting an External Device

- 1. Select TOOLS. The Tools list appears.
- 2. Select Anynet+ (HDMI-CEC) from the list, The Select Device screen appears,
- 3. Select a device and wait for the switch to take place. This process may take up to 2 minutes to complete and cannot be cancelled once started.

# Accessing the External Device's Menu

Once the TV has switched over to the selected device, you can access the device's menu using the TV's remote control.

Select TOOLS. The following list appears, though it may differ based on the external device:

Anynet+ (HDMI-CEC)

Displays a list of HDMI-CEC-compliant devices connected to the TV. Select View TV to exit Anynet+ (HDMI-CEC), and start watching TV. To switch to the screen of an external device, simply select that respective device.

(Connected Device) Menu

Display the menu of the connected device. If the target device is a DVD player, the DVD menu is shown,

(Connected Device) Tools

Displays a list of frequently-used functions available for the device. If the target device is a DVD player, the DVD playback menu is shown.

- Some external devices may not support this option.
- (Connected Device) Title Menu

Display the connected device's title menu. If the target device is a DVD player, the DVD title menu is shown.

Some external devices may not support this option.

# Using the e-Manual

# Launching the e-Manual

#### Support > e-Manual

The embedded e-Manual contains information.

- You can also download a copy of the e-Manual from Samsung's website, and read it on your computer or print it out.
- Yellow words indicate a menu item; white bold words indicate remote control buttons. Arrows are used to indicate the menu path. (Example: Picture > Picture Mode)
- 1. Select e-Manual. The e-Manual loads.
- 2. Select a category from the side of the screen. Once a selection has been made, the contents of the selected category appear,
- 3. Select an item from the list, This opens the e-Manual on the corresponding page,

# If a description doesn't fit on a single screen...

You can scroll pages in one of the following ways.

# Additional e-Manual Features

## Loading Pages using Keywords

Select **Search** from the side of the screen to bring up the search screen. Enter a search term and then select **Done**, Select an item from the search results to load the corresponding page.

# Loading Pages from the Index Page

Select Index from the side of the screen to bring up the index screen. Select a keyword from the list to navigate to the relevant page.

# Using History to Load Previously Read Pages

Select Recent pages from the side of the screen, A list of previously read pages is shown, Select a page. The e-Manual jumps to the selected page.

# Accessing the Menu from the e-Manual (Try Now)

Select (Try Now) on a feature-description to directly move to the corresponding menu and try out the feature,

If you want to read an e-Manual entry on a specific screen menu feature.

Using Samsung Smart Control: press the KEYPAD button and select e-Manual.

Using the remote control: Press the E-MANUAL button.

Certain menu options cannot be used.

# **Loading Reference Pages**

Select (Link) from the side of a feature-description page to access the corresponding reference page.

# Updating the e-Manual to the Latest Version

You can update the e-Manual in the same way as updating apps.

- 1. Select the e-Manual item in the SAMSUNG APPS screen.
- 2. Press and hold the Enter button. The Options menu appears.
- 3. From the Options menu on the screen, select **Update apps**. A pop-up window appears.
  - Update apps is shown on the screen only when an update is required.
- 4. Select e-Manual in the pop-up window and then select Update, You can update the e-Manual to the latest version.

# **Updating the Software**

## Support > Software Update Try Now

Check your TV's software version and upgrade it if necessary,

If the TV is connected to the Internet, TV is set to update software automatically. If you don't want to update it automatically, set Auto update (Software Update > Auto update) to Off.

# **Updating Software over the Internet**

# Support > Software Update > Update now

Select Support > Software Update > Update now. An online upgrade downloads and installs the upgrade software directly from the Internet.



▲ DO NOT turn off the TV's power until the upgrade is complete. The TV will turn off and on
automatically after completing the software upgrade. All video and audio settings return to the
default settings after a software upgrade.

# Updating Software using a USB connection

## Support > Software Update > Update now

- 1. Visit Samsung's website on a computer and download the update package to a USB device.
  - Save the update package in the USB device's top-level folder. Otherwise, the TV will not be able to locate the update package.
- 2. Connect the USB device with the update package to the TV.
- Select Support > Software Update > Update now. The software is updated using the update package on the USB device.

# **Enabling Automatic Software Updates**

## Support > Software Update > Auto update (Try Now)

If the TV is connected to the Internet, the **Auto update** option upgrades the TV's software while it is in Standby Mode. In Standby Mode, the TV appears to be turned off, but still has access to the Internet. This allows the TV to upgrade itself automatically while it is not in use.

This option requires an Internet connection.

Because the TV's internal processes are operating, the screen may emit a faint glow, and this may continue for more than 1 hour until the software download is complete.

If you agree to the Smart Hub terms and conditions, Auto update will be set to On, If you don't want the TV's software updated automatically, set Auto update (Support > Software Update > Auto update) to Off.

- 1. Select Support > Software Update > Auto update.
- 2. Specify when you want the upgrade to take place. The TV will connect to the server at the specified time, download the update package, and upgrade its own software.

# Software update via satellite channel

Availability depends on the specific model and area.

## Support > Software Update > Manage Satellite Channels

(When the Aerial was set to Satellite) Manage software downloads via a satellite channel.

# Protecting the TV from Hacking and malicious code

## System > Smart Security (Try Now)

When the TV is connected to the Internet, it is vulnerable to hacks and malicious code. **Smart Security** protects the TV and storage media connected to the TV from such threats.

Navigate to System > Smart Security and set Smart Security to On. (Try Now)

# Checking the TV and Connected Storage Media

# System > Smart Security > Scan

Navigate to System > Smart Security and select Scan. This scans the TV and connected media for the presence of malicious code. If no malicious code is detected, a notification window appears on the screen.

# If malicious code is detected...

If malicious code was found, the results of the scan will appear on the screen. This result window displays all malicious code found, and provides options to either quarantine the code or allow them to continue,

- 1. Select all malicious code to quarantine or allow.
- Select Block or Allow. This moves the selected malicious code to the Isolated List or Allowed List
  - The Isolated List displays all blocked malicious code. You can also relocate codes from this list to the Allowed List.
  - The Allowed List displays all allowed malicious code. You can also relocate codes from this list to the Isolated List.

# Automatically Scanning when the TV is Powered On

#### System > Smart Security > Settings > Auto Scan

Navigate to System > Smart Security > Settings and then set Auto Scan to On. This automatically scans the TV and connected storage media when the TV is powered on.

# Automatically Adding malicious code to the Blocked List

#### System > Smart Security > Settings > Move to Isolated List automatically

Navigate to System > Smart Security > Settings and set Move to Isolated List automatically to On. Malicious code found during the scanning process is automatically added to the Blocked List.

# **Using Other Functions**

# **Enabling Voice Guide for the Visually Impaired**

Availability depends on the specific model, area and language.

#### System > Accessibility > Voice Guide

Voice Guide provides guiding information in voice to aid the visually impaired to use the TV more conveniently. Enabling this option provides voice guide regarding focus change, channel change, volume change, and various other TV statues.

Navigate to System > Accessibility > Voice Guide and set Voice Guide to On.

- Press and hold the \$\times\$ button on the Samsung Smart Control to turn on or off the **Voice Guide**.
- The Voice Guide is only provided in the language set in the Menu Language (System > Menu Language). However, some of the languages are not supported by Voice Guide even though they are listed in the Voice Guide screen. If this is the case, choose a different language.
- To change the speaker's gender for the Voice Guide option, navigate to System > Voice Control > Use TV Voice and change the Voice Gender option.
- If the **Voice Guide** is set to On, the Samsung Smart Control's motion sensor(gyro sensor) does not work. To use the Samsung Smart Control's motion sensor, set the **Voice Guide** to **Off**.

The Voice Guide will give information for the following functions on the TV.

- Some sub-functions or function menus may not provide Voice Guide. In this case, the TV will tell you that Voice Guide is not provided.
- Change Channels
- Changing TV Volume
- Programme Info Window (Information)
- Channel List
- Source
- Guide
- On TV
- Voice Control
- TV' menu

#### Changing the volume, speed, pitch and Description Level of the Voice Guide

Navigate to System > Accessibility and then select Voice Guide. This changes the volume, speed, pitch and description level of the Voice Guide.

Volume

Change the Voice Guide option's volume level.

The Voice Guide volume may vary depending on the TV volume setting.

Speed

Change the Voice Guide option's tempo.

Pitch

Adjust the pitch of the Voice Guide.

Description Level

Adjust the Voice Guide option to better suit the user's description Level.

## **Enabling the High Contrast**

System > Accessibility > High Contrast (Try Now)

Navigate to System > Accessibility and set the High Contrast option to On. This option changes major service screens to white text on black background or change the transparent TV menus to opaque so that text can be more easily read.

Press and hold the 🗸 button on the Samsung Smart Control to turn on or off **High Contrast**.

# Adjusting the Menu Transparency

System > Accessibility > Menu Transparency (Try Now)

Navigate to System > Accessibility and adjust the opacity level. Adjust the menu's transparency.

When the **High Contrast** (**System** > **Accessibility** > **High Contrast**) setting is set to **On**, menu display is automatically set to opaque and you cannot change the **Menu Transparency** settings.

# **Expanding the Smart Hub's Focus Area**

#### System > Accessibility > Enlarge (Try Now)

Navigate to System > Accessibility and set Enlarge to On. This zooms in the focused item when you use Smart Hub.

Press and hold the 🗸 button on the Samsung Smart Control to turn on or off **Enlarge**.

# Changing the Menu Language

#### System > Menu Language (Try Now)

Select System > Menu Language and then choose a language from the list. Use this option to change the menu language.

# **Checking Notifications**

#### System > Notifications (Try Now)

Select **Notifications** from the **System** menu to view the list of event messages generated by the TV. **Notifications** appear on the screen when events such as an update release for an app or Samsung Account login/logout occurs.

- Select **Delete All** to delete all notifications.
- Select Service Notice to check the SMART TV service notifications in a web browser.

# Setting Up a Password

#### System > Change PIN (Try Now)

Set a PIN (Personal Identification Number) to lock channels, reset the TV, and change the TV settings.

- 1. Select System > Change PIN. The PIN input window appears.
- 2. Enter a PIN. The default PIN is 0000. (For France, Italy: "1-1-1-1")
- 3. Enter a new PIN and then enter it again to confirm it. The PIN change is complete.
  - If you forget your PIN, you can reset it using the Samsung Smart Control. With the TV turned on, press the following buttons on the remote to reset the PIN to 0000:  $\checkmark$   $\rightarrow$  +  $\rightarrow$  RETURN  $\rightarrow$   $\rightarrow$  RETURN  $\rightarrow$  +  $\rightarrow$  RETURN. + is the Volume Up button. is the Volume Down button. The  $\checkmark$  button is on the left side of the remote,

# **Programme Rating Lock**

#### Broadcasting > Programme Rating Lock (Try Now)

Availability depends on the specific model and area.

The Programme Rating Lock blocks programmes with ratings higher than those desired. This is useful for controlling what children watch on TV. This will not function for programmes originating from external sources, such as DVD players or USB files.

This PIN is required to watch a blocked programme.

The Programme Rating Lock is not available in HDMI or Component mode,

# **Enabling Game Mode**

#### System > General > Game Mode (Try Now)

Game Mode optimises the TV's settings for playing video games on a gaming console such as PlayStation<sup>TM</sup> or Xbox<sup>TM</sup>.

#### Requirements:

- Game Mode cannot be used for normal TV viewing.
- Connect the gaming console before enabling Game Mode. Otherwise, the picture quality may suffer.
- The screen may shake a little.
- Enabling Game Mode automatically sets the Picture Mode to Standard and the Sound Mode to Movie.
- To use a different external device, first disconnect the game console and disable Game Mode.

# **Enjoying Rich Colours and Superior Picture Quality (BD Wise)**

Availability depends on the specific model and area.

System > General > BD Wise (Try Now)

Connecting a Samsung DVD player, Blu-ray player, or home theatre system that supports **BD Wise** enables the richest colours and best possible picture quality. Enabling BD Wise automatically optimises the TV's resolution,

This feature is only available when the external device is connected via an HDMI cable.

# **Enabling/Disabling Sound Feedback**

System > General > Sound Feedback (Try Now)

Sound Feedback provides audio cues as you navigate through menus and select menu options,

# Locking/Unlocking the Panel Keys

System > General > Panel Lock (Try Now)

Use to lock and unlock the TV's front panel buttons.

# Showing/Hiding the Samsung Logo while Booting

System > General > Boot Logo (Try Now)

Use to enable or disable the Samsung logo display that appears when the TV starts up.

# **Enabling the TV to Boot Faster**

#### System > General > Samsung Instant On

Availability depends on the specific model and area.

Enable or disable the functionality that enables your TV to turn on quickly.

# Registering the TV as a DivX-Certified Device (Watching Paid DivX Movies)

#### System > DivX® Video On Demand Try Now

Viewing DivX® DRM-protected DivX movies on the TV first requires registration of the TV as a DivX-certified device.

- DRM ("Digital rights management") Digital Rights Management is a digital security measure designed to protect copyright.
- You can watch personally-created and free DivX content without registering the TV.
- Visit the DivX website (http://www.divx.com) and log into your user account before registering the TV as a DivX-certified device. If you do not have an account, please create one.
- Select System > DivX® Video On Demand. A window with a registration code appears on the screen.
- Visit the DivX website on a computer and click [Register Your Device] under [Support] from the top menu,
- 3. Enter the registration code shown on the TV's screen in the [Enter your registration code] field.
- 4. Enter the TV's name in the [Name your device] field and then select [NEXT].
- Click [DOWNLOAD] and save the [device\_name.divx] file.
- 6. Transfer the [device\_name.divx] file from the computer onto a USB device and then plug the USB device into the TV.
- 7. Play the [device\_name.divx] file on the TV to register the TV as a DivX-certified device.

# Restoring the TV to the Factory Settings

#### Support > Self Diagnosis > Reset (Try Now)

This option restores all TV settings (excluding the Internet) to the factory defaults,

- 1. Select Support > Self Diagnosis > Reset. The Security PIN entry window appears on the screen.
- 2. Enter the Security PIN and then select **Yes**. All settings are then reset. The TV turns off and on again automatically, and then displays the **Setup** screen.
  - For more information on Setup, refer to the user manual that came with the TV.

# Turning the TV into a Display Model (for retail stores)

#### Support > Use Mode (Try Now)

Select Support > Use Mode > Store Demo. This turns the TV into a display model for use in a retail environment.

- For all other uses, select **Home Use**.
- Store Demo should be used in retail environments only. With Store Demo, certain functions are disabled and the TV automatically resets itself after a certain amount of time.

# **Data Service**

This function may not be available, depending on the country.

Allows the user to use information (text, still images, graphics, documents, software, etc.) transmitted via broadcast media

#### **Auto Run Data Service**

#### Broadcasting > Channel Settings > Auto Run Data Service

Sets whether or not to automatically run data service. Auto Run Data Service automatically runs data service without user intervention.



If any other secondary function is under way, Auto Run Data Service may not work.

# **Using Data Service**

If the channel you are currently watching provides data service, you can enjoy a variety of data services by selecting [A].

- Provided Data Service information may vary depending on broadcast.
- While using data services, changing the channel using numeric keys may not be possible, depending on the service.
- 1. Select A and then select a desired service.
  - If Auto Run Data Service is On, the data service will automatically run with loading banner. In this case, the A function does not work.
- 2. Select A to display the data service screen.
- Move to a desired option on the data service screen and then select OK. The selected service starts.
- 4. If you select EXIT, data service closes.

# **HbbTV**

This function may not be available, depending on the country.

Access services from entertainment providers, online providers and CE manufactures through HbbTV,

- In some countries, HbbTV is a data service.
- This service may be supported in other countries.
- Some broadcasting may not support the HbbTV.

HbbTV is turned off by default. To use HbbTV, go to System > Data Service and set it Enable. (Depending on the country)

- HbbTV is not available when Timeshift is running or when a recorded video is being played back.
- An application on HbbTV may malfunction temporarily depending on the circumstances of the broadcast station or application provider.
- An application is only available for use on HbbTV when the TV network is connected to an
  external network. The application may malfunction depending on the network conditions.
- If the current channel is compatible with both the HbbTV and non-HbbTV text input modes, activate TTX by select TTX key twice.

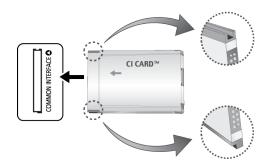
#### Using HbbTV:

- When the screen indicates (with the A, etc.) that HbbTV is being accessed.
- Select TTX using the remote once to enter the HbbTV text-input mode.
- Select TTX using the remote twice to enter the non-HbbTV text-input mode.

# Connecting to a TV Viewing Card slot

# To connect the CI CARD, follow these steps:

#### Using the "CI or CI+ CARD"



#### To watch paid channels, the "CI or CI+ CARD" must be inserted.

- Turn the TV off to connect or disconnect a CI card.
  - If you don't insert the "CI or CI+ CARD", some channels will display the message "Scrambled Signal".
- The pairing information containing a telephone number, the "CI or CI+ CARD" ID the Host ID and other information will be displayed in about 2~3 minutes. If an error message appears please contact your service provider.
- When the configuration of channel information has finished, the message "Updating Completed" is displayed, indicating the channel list is updated.

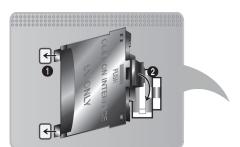
#### Requirements:

- You must obtain a "CI or CI+ CARD" from a local cable service provider.
- When removing the "CI or CI+ CARD", carefully pull it out with your hands since dropping the "CI or CI+ CARD" may cause damage to it.
- Insert the "CI or CI+ CARD" in the direction marked on the card.
- The location of the COMMON INTERFACE slot may be different depending on the model.
- "CI or CI+ CARD" is not supported in some countries and regions; check with your authorised dealer,
- If you have any problems, please contact a service provider.
- Insert the "CI or CI+ CARD" that supports the current aerial settings. The screen will be distorted
  or will not be seen.

# To connect the CI CARD Adapter, follow these steps:

- We recommend attaching the adapter before installing the wall mount, or inserting the "CI or CI+ CARD".
- Turn the TV off to connect or disconnect a CI card adapter.





- 1. Insert the CI CARD Adapter into the two holes on the product 1.
  - Please find two holes on the rear of the TV. Two holes are beside the COMMON INTERFACE port.
- 2. Connect the CI CARD Adapter into the COMMON INTERFACE port on the product 2.
- 3. Insert the "CI or CI+ CARD"

## Using the "CI or CI+ CARD"



To watch paid channels, the "CI or CI+ CARD" must be inserted.

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- The pairing information containing a telephone number, the "CI or CI+ CARD" ID the Host ID and other information will be displayed in about 2~3 minutes. If an error message appears please contact your service provider,
- When the configuration of channel information has finished, the message "Updating Completed" is displayed, indicating the channel list is updated.

#### Requirements:

- You must obtain a "CI or CI+ CARD" from a local cable service provider.
- When removing the "CI or CI+ CARD", carefully pull it out with your hands since dropping the "CI or CI+ CARD" may cause damage to it.
- Insert the "CI or CI+ CARD" in the direction marked on the card.
- The location of the COMMON INTERFACE slot may be different depending on the model.

## **Teletext Feature**

Availability depends on the specific model and area.

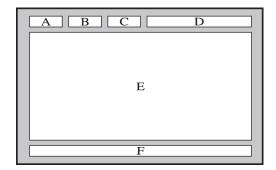
The index page of the Teletext service gives you information on how to use the Service. For Teletext information to be displayed correctly, channel reception must be stable. Otherwise, information may be missing or some pages may not be displayed.

- You can change Teletext pages by select numeric using your remote control,
- Teletext on / mix / off: Activates the Teletext mode for the current channel. Press twice to overlap the Teletext mode with the current broadcasting screen. Press it one more time to exit teletext.
- Store: Stores the Teletext pages.
- Size: Displays the teletext on the upper half of the screen in double-size. To move the text to the lower half of the screen, press it again. For normal display, press it once again.
- E3 Hold: Holds the display at the current page, in the case that there are several secondary pages that follow automatically. To undo, press it again.

Colour buttons (red, green, yellow, blue): If the FASTEXT system is used by the broadcasting company, the different topics on a Teletext page are colour-coded and can be selected by coloured buttons. Press the colour corresponding to the topic of your choice. A new colour coded page appears. Items can be selected in the same way. To display the previous or next page, select corresponding coloured button.

- Mode: Selects the Teletext mode (LIST / FLOF). If pressed during LIST mode, switches the mode to List save mode. In List save mode, you can save a Teletext page into a list using the (store) button.
- Sub-page: Displays the available sub-page.
- Page up: Displays the next Teletext page.
- Page down: Displays the previous Teletext page.
- [Index: Displays the index (contents) page at any time while you are viewing Teletext.
- Reveal: Displays the hidden text (answers to quiz games, for example). To display the normal screen, press it again.
- **EX** Cancel: Shrinks the Teletext display to overlap with the current broadcast,

## Typical Teletext page



Part	Contents
А	Selected page number.
В	Broadcasting channel identity.
С	Current page number or search indications.
D	Date and time.
Е	Text.
F	Status information, FASTEXT information.

# **Getting Support**

The TV has several built-in systems designed for user and TV system support.

# Support through Remote Management

#### Support > Remote Management (Try Now)

If you need assistance with your TV, you can use this feature to let Samsung Electronics diagnose your TV remotely. You will need to read and agree to the service agreement before using this feature. A Samsung Electronics technician will then diagnose, repair, and update your TV remotely.



This option requires an Internet connection.

#### What Does Remote Service Do?

Samsung Remote Support service offers you one-on-one support with a Samsung Technician who can remotely.

- Diagnose your TV
- Adjust the TV settings for you
- Perform a factory reset your TV
- Install recommended firmware updates

#### How Does it Work?

Having a Samsung Tech remotely service your TV is easy.



Call the Samsung Contact Centre and ask for remote support.



Open the menu on your TV and go to the Support section.



Select Remote Management, and then read and agree to the service agreements. When the PIN screen appears, provide the PIN number to the agent.



The agent accesses your TV.

# Finding the Information You Need for Service

#### Support > Contact Samsung (Try Now)

Use this option to find the support service website's address and contact number, your TV's model number, your TV's software version, the Smart Hub info, and other information you need to receive the service support.

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Press A to view the open source licence.

# There is a problem with the screen

# **Testing the Picture**

#### Support > Self Diagnosis > Picture Test (Try Now)

Before you review the list of problems and solutions below, run the Picture Test to determine if the problem is caused by the TV. The Picture Test displays a high definition picture you can examine for flaws or faults. If the test picture does not appear or there is noise or distortion, the TV may have a problem. Contact Samsung's Call Centre for assistance. If the test picture is displayed properly, there may be a problem with an external device. Please check the connections. If the problem persists, check the signal strength or refer to the external device's user manual.

- If the test picture does not appear or there is noise or distortion, the TV may have a problem. Contact Samsung's Call Centre for assistance.
- If the test picture is displayed properly, there may be a problem with the external device. Please check the connections. If the problem persists, check the signal strength or refer to the external device's user manual.

The Problem	Try this!
Flickering and Dimming	If your Samsung Television is flickering or dimming sporadically, you may need to disable some of the energy efficiency features. Disable Energy Saving (System > Eco Solution > Energy Saving) or Eco Sensor (System > Eco Solution > Eco Sensor).
Component Connections/Screen Colour	<ul> <li>If the colour on your Samsung television screen is not correct or the black and white colours are off, run Picture Test (Support &gt; Self Diagnosis &gt; Picture Test).</li> <li>If the test results indicate that the problem is not caused by the TV, do the following:</li> <li>Confirm that the TV's video input connectors are connected to the correct external device video output connectors.</li> <li>Check the other connections as well. If the TV is connected to an external device via a component cable, confirm that the Pb, Pr, and Y jacks are plugged into their proper connectors.</li> </ul>
Screen Brightness	If the colours on your Samsung TV are correct but just a little too dark or bright, try adjusting the following settings first.  • Go to the Picture menu and adjust the Contrast, Brightness, Sharpness, Colour, and Tint (G/R) settings.
Motion Plus/Blur	If you notice ghosting or blurring on the screen, use the Motion Plus option (Picture > Picture Options > Motion Plus) to resolve the issue.
Unwanted Powering Off	If your Samsung TV appears to turn off by itself, try disabling some of the TV's energy efficiency features. See if Sleep Timer (System > Time > Sleep Timer) has been enabled. The Sleep Timer automatically turns the TV off after a specified period of time. If the Sleep Timer has not been enabled, see if No Signal Power Off (System > Eco Solution > No Signal Power Off) or Auto Power Off (System > Eco Solution > Auto Power Off) has been enabled and disable them.
Problems Powering On	When the TV is turned on, the remote control receiver flashes 5 times before the screen turns on.  If you are having problems powering on your Samsung television, there are a number of things to check before calling the service department. Confirm that the TV's power cord is connected correctly at both ends and that the remote control is operating normally. Make sure that the antenna cable or cable TV cable is firmly connected. If you have a cable/satellite box confirm that it is plugged in and turned on.
Unable to find a Channel	Launch Setup (System > Setup) or Auto Tuning (Broadcasting > Auto Tuning).  If your TV is not connected to a cable box or satellite box, run Setup (System > Setup) or Auto Tuning (Broadcasting > Auto Tuning).

The Problem	Try this!
The TV image does not look as good as it did in the store.	Store displays are all tuned to digital, HD (high definition) channels.  If you have an analogue cable/set top box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality.  Many HD channels are upscaled from SD (Standard Definition) content. Look for a channel that is broadcasting true HD content.  • Cable/Satellite Subscribers: Try HD channels from the channel lineup.  • Terrestrial/Cable Aerial Connection: Try HD channels after running the Auto Tuning function.  Adjust the cable/satellite box's video output resolution to 1080i or 720p.
The picture is distorted.	The compression of video content may cause picture distortions, especially in fast moving pictures from sports programmes and action movies.  A weak or bad quality signal can cause picture distortions. This is not an issue with the TV.  Mobile phones used close to the TV (within 1 m) may cause noise in analogue and digital channels.
The colour is wrong or missing.	If you're using a Component connection, make sure that the Component cables are connected to the correct jacks. Incorrect or loose connections may cause colour problems or a blank screen.
The colour is poor or the picture is not bright enough.	Go to the Picture menu and then adjust the Picture Mode, Brightness, Sharpness, and Colour settings.  See if Energy Saving (System > Eco Sensor > Energy Saving) has been enabled.  Try resetting the picture. (Picture > Reset Picture)
There is a dotted line on the edge of the screen.	If the Picture Size has been set to Screen Fit, change the setting to 16:9. Change the cable/satellite box resolution.
The picture is black and white.	If you are using AV composite input, connect the video cable (yellow) to the TV's green component jack.
The colour is wrong or missing.	If you are using a Component connection, make sure that the Component cables are connected to the correct jacks. Incorrect or loose connections may cause colour problems or a blank screen.
When changing channels, the picture freezes or is distorted or delayed.	If the TV is connected to a cable box, try to reset the box. (Disconnect and then reconnect the AC cord and wait until the cable box reboots. It may take up to 20 minutes.)  Set the output resolution of the cable box to 1080i or 720p.

# I can't hear the sound clearly

# **Testing the Sound**

#### Support > Self Diagnosis > Sound Test (Try Now)

Before you review the list of problems and solutions below, make sure that the **Speaker Select** menu item is set to **TV Speaker**, and then listen to the speakers again. If the TV still does not play audio, run the Sound Test. The **Sound Test** uses a built-in melody to check for sound problems. If the TV does not play sound during the **Sound Test**, or the sound is distorted, there may be a problem with the TV. Contact Samsung's Call Centre for assistance. If the TV plays the Sound Test melody without distortion, there may be a problem with an external device. Please check the connections. If the problem persists, refer to the external device's user manual.

- If you can't hear the melody or there is a problem, make sure Sound > Speaker Settings > TV Sound Output is set to TV Speaker and then try again. If the problem persists, there may be a problem with the TV. Contact Samsung's Call Centre for assistance.
- If the melody is played, there may be a problem with the external device. Please check the connections. If the problem persists, refer to the external device's user manual.

The Problem	Try this!
There is no sound or the sound is too low at maximum volume.	Check the volume control of the device (cable/satellite box, DVD, Blu-ray, etc.) connected to your TV.
The picture is good but there is no sound.	Set Sound > Speaker Settings > TV Sound Output to TV Speaker.  If you are using an external device, check the device's audio output option. (For example, you may need to change your cable box's audio option to HDMI if the box connected to your TV is using an HDMI cable.)  To listen to the computer sound, connect the external speaker to the computer's audio output connector.  If your TV has a headphone jack, make sure there is nothing plugged into it.  Reboot the connected device by disconnecting and then reconnecting the device's power cable.
The speakers are making an odd sound.	Make sure that the audio cable is connected to the correct audio output connector on the external device.  For antenna or cable connections, check the signal information. A low signal level may cause sound distortions.  Run Sound Test (Support > Self Diagnosis > Sound Test).

# I can't see 3D images clearly.

# **Testing 3D Picture Quality**

Availability depends on the specific model and area.

#### Support > Self Diagnosis > 3D Picture Test

If you have not paired your 3D glasses with the TV, pair them first. To test 3D picture quality, the TV and the 3D glasses must have been paired.

Put on the 3D glasses, navigate to **Support** > **Self Diagnosis** and select **3D Picture Test**. The 3D Picture Test displays a high definition picture to examine the 3D screen for flaws or faults. If the test fails to identify a problem, there may be a problem with an external device or the signal strength.

- If the test picture does not appear or there is noise or distortion, the TV may have a problem. Contact Samsung's Call Centre for assistance.
- If the test picture is displayed properly, there may be a problem with the external device. Please check the connections. If the problem persists, check the signal strength or refer to the external device's user manual.

The Problem	Try this!
The 3D glasses are not working correctly.	Make sure the glasses are powered on.  The 3D feature may not work properly if there is another 3D product or an electronic device running nearby.  If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.
I can't see 3D images clearly.	The ideal viewing distance is three times or more the height of the screen.  We also recommend watching 3D content with your eyes level with the screen.
The batteries in the 3D glasses are flat.	Turn off the 3D glasses when they are not in use. If you leave the 3D glasses on, the battery lifespan is shortened.

# There is a problem with the broadcast.

The Problem	Try this!
The TV is not receiving all channels.	<ul> <li>If your TV is not connected to a cable box or satellite box:</li> <li>Confirm that the coaxial cable is securely connected to the TV.</li> <li>If you are using an antenna, verify it is positioned correctly and the all the connections are secure.</li> <li>Run Setup (System &gt; Setup) or Auto Tuning (Broadcasting &gt; Auto Tuning).</li> </ul>
There are no captions with digital channels.	Go to Subtitle (System > Accessibility > Subtitle) and change the Subtitle Mode. Some channels may not have caption data.
The picture is distorted.	The compression of the video content may cause picture distortions. This is especially true with fast moving pictures from sports programmes and action movies.  A weak signal can cause picture distortions. This is not a problem with the TV.

# The computer won't connect.

The Problem	Try this!
The "Mode Not Supported" message appears.	Set your PC's output resolution so it matches a resolution supported by the TV.
The video is OK but there is no audio.	If you are using an HDMI connection, check the audio output setting on your PC.  If you are using a DVI to HDMI cable, a separate audio cable is required.

# I can't connect to the Internet.

The Problem	Try this!
The wireless network connection failed.	Make sure the TV is connected to a wireless IP router.
The software update over the Internet has failed.	Check the network connection status.  If the TV is not connected to a network, connect to a network.  The upgrade stops if you already have the latest software version.

# **Data Service**

The Problem	Try this!
Why am I getting on- screen messages when I haven't selected the Data Service option?	If Auto Run Data Service is set to On, messages will automatically appear on the screen when you watch a broadcast that supports the Data Service. If the broadcast doesn't support the Data Service, no messages will appear on the screen.  If you do not wish to receive Data Service messages, disable Auto Run Data Service.
How do I hide Data Service messages?	Press EXIT button to hide the messages. If you do not wish to receive Data Service messages, disable Auto Run Data Service.
How do I use the Data Service?	Enabling the Auto Run Data Service option automatically displays messages on the screen whenever you watch a broadcast that supports the Data Service. You can press the corresponding buttons shown on the screen to access additional features and functions offered by that broadcast.
What is an interactive service and how does it work?	Interactive services include viewer surveys, quizzes, ticket requests, product purchases, and other interactions between the viewer and the TV station. Generally, you will need to set up an account with the broadcaster and log in to the account in order to enjoy the interactive services they offer. Note that interactive services are only available when your TV is connected to the Internet. In addition, T-Commerce requires that you have a certificate.  Copy your certificate from the computer to a USB device and connect that device to the TV. (Interactive services are not being offered yet. The actual service launch date varies depending on the broadcaster.)
A message displays "Receiving" but no change happens.	This indicates an error has occurred while receiving data. An execution error message will also appear on the screen. If this happens, try again.
Nothing appears on the screen after the Data Service is launched.	The Data Service may be initialising or the signal may have been severed by the broadcaster.

# The Schedule Recording/Timeshift function isn't working.

The Problem	Try this!
The TV cannot recognise the USB device or the Format Device, Check Device and Device Performance Test functions fail.	Refer to the USB device's manual and see if data can be stored on it. Check if the USB device is in a locked state. Check if the USB device was formatted when it was connected to a computer. Formatting a USB device after connecting it to the TV may result in a formatting failure. If Device Performance Test or Format Device has failed, there may be a problem with the USB device or its specifications. Try using a different USB device.
There is a message saying I need to format the USB Drive.	Check if the USB device is in a locked state. Use the USB recovery function to recover the USB device.
Schedule Recording cannot be used.	Check if there is a USB device connected to the TV.  Check if the channel is a digital channel that can be recorded. Recording will automatically stop if the signal becomes too weak. The Timeshift function will not work if there isn't enough storage space on the USB device.
I get a performance test failure message and then Schedule Recording and the Timeshift operation stops working.	This problem can occur when using a low-performance USB Drive that does not support recording. A USB hard drive with a speed of 5,400rpm or above is recommended. A USB memory stick is not supported.

# Anynet+ (HDMI-CEC) isn't working.

The Problem	Try this!
Anynet+ does not work.	Confirm that the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only. Check if the power cord of the Anynet+ device is properly connected. Check the cable connections of the Anynet+ device. Go to System and see if Anynet+ (HDMI-CEC) has been set to On. Check whether the TV remote control is in TV mode. Check whether the remote control is Anynet+ compatible. Anynet+ may not function when certain functions are operational. (Channel Search, Smart Hub, set up, etc.) If you have disconnected and then reconnected the HDMI cable, scan for devices again or turn your TV off and on.
I want to start Anynet+.	Check if the Anynet+ device is properly connected to the TV and then navigate to the System menu to see if Anynet+ (HDMI-CEC) is set to On.  Once verified, select TOOLS button. A list appears. Select Anynet+ (HDMI-CEC) from the list and then a device.
I want to exit Anynet+.	Select View TV from the Anynet+ menu. Select a non-Anynet+ device from the Source list.
The message "Connecting to Anynet+ device" or "Disconnecting from Anynet+ device" appears on the screen.	You cannot use the remote control when you are configuring Anynet+ or switching to a viewing mode. Use the remote control after the TV has completed the Anynet+ configuration or has switched to a viewing mode.
The Anynet+ device won't play.	You cannot use the play function when Setup is in progress.
The connected device is not displayed.	Check whether the device supports Anynet+. Check whether the HDMI cable is properly connected. Go to System and see if Anynet+ (HDMI-CEC) has been set to On. Scan for Anynet+ devices again. Anynet+ devices must be connected to the TV using an HDMI cable. Make sure the device is connected to your TV with an HDMI cable. Some HDMI cables may not support Anynet+.  If the connection is terminated because there has been a power failure or the HDMI cable has been disconnected, please scan for the device again.
The TV audio is not being played through the receiver.	Connect an optical cable to the TV and the receiver.  ARC enables digital sound to be outputted via the HDMI (ARC) port.  However, ARC is only available when the TV is connected to an audio receiver that supports ARC.

# I am having trouble launching/using apps.

The Problem	Try this!
I launched an app, but it's in English. How can I change the language?	Languages supported by the app may be different from the user interface language.  The ability to change the language depends on the service provider.
My application is not working.	Check with the service provider.  Refer to the help section on the application service provider's website.

# My file won't play.

The Problem	Try this!
Some files can't be played.	This problem may occur with high-bitrate files. Most files can be played back, but you might experience problems with high-bitrate files.

# I want to reset the TV.

Reset	Path	Description
Reset Settings	Support > Self Diagnosis > Reset	Reset Picture, Sound, Channel, Smart Hub, and all other settings except for the network settings to their factory default settings.
Resetting Smart Hub	Smart Hub > Reset Smart Hub	Reset all saved information relating to Samsung accounts and linked service accounts, as well as Smart Hub service agreements and applications.

# Other Issues

The Problem	Try this!	
The TV is hot.	Watching TV for an extended period of time causes the panel to generate heat. The heat from the panel is dissipated through internal vents running along the top of the TV. The bottom, however, may feel hot to the touch after extended use. Children watching TV need constant adult supervision to prevent them from touching the TV. This heat, however, is not a defect and does not affect the TV's functionality.	
The picture won't display in full screen.	HD channels will have black bars on either side of the screen when displaying upscaled SD (4:3) content.  Black bars will appear at the top and bottom of the screen when you watch movies that have aspect ratios different from your TV.  Adjust the picture size options on your external device or set the TV to full screen.	
The "Mode Not Supported" message appears.	The output resolution of the attached device is not supported by the TV. Check the supported resolutions of the TV and adjust the external device's output resolution accordingly.	
The Subtitle item in the TV menu is grayed out.	You cannot select the Subtitle menu if you have selected a source connected to the TV via HDMI or Component connections. To view subtitle, turn on the external device's subtitle function.	
The TV smells of plastic.	This smell is normal and will dissipate over time.	
The Signal Information option under Self Diagnosis isn't activated.	Verify that the current channel is a digital channel.  The Signal Information is only available for digital channels.	
The TV is tilted to the side.	Remove the base stand from the TV and reassemble it.	
The Broadcasting option has been deactivated.	Broadcasting is only available when the Source is set to TV.  The Broadcasting menu cannot be accessed while watching TV using a cable box or satellite receiver.  Certain Broadcasting menus cannot be accessed while recording or while the TimeShift operation is in progress.	
The settings are lost after 5 minutes or every time the TV is turned off.	If the Use Mode is set to Store Demo, the TV's audio and video settings are automatically reset every 5 minutes.  Change the Use Mode (Support > Use Mode) to Home Use.	
There is an intermittent loss of audio or video.	Check the cable connections and reconnect them.  Loss of audio or video can be caused by using overly rigid or thick cables.  Make sure the cables are flexible enough for long term use. If you are mounting the TV to a wall, we recommend using cables with 90-degree connectors.	
There are small particles on the TV's bezel.	This is part of the product's design and is not a defect.	
The PIP menu is not available.	PIP functionality is only available when you are using an HDMI or Component source.	

The Problem	Try this!
A POP (TV's internal banner ad) appears on the screen.	Change the Use Mode (Support > Use Mode) to Home Use.
The TV is making a popping noise.	The expansion and contraction of the TV's outer casing may cause a popping noise. This does not indicate a product malfunction. The TV is safe to use.
The TV is making a humming noise.	Your TV utilises high-speed switching circuits and high levels of electrical current. Depending on the TV's brightness level, the TV may seem slightly noisier than a conventional TV.  Your TV has undergone strict quality control procedures that meet our demanding performance and reliability requirements.  Some noise coming from the TV is considered normal and is not an acceptable cause for an exchange or refund.

# Before Using the Recording and Timeshift Functions

Availability depends on the specific model and area.

# Before Using the Recording and Schedule Recording Functions

- To set up a Schedule Recording, you must first set the TV's clock. Set the Clock (System > Time > Clock).
- Recordings are DRM-protected and therefore cannot be played back on a computer or on a
  different TV. In addition, these files cannot be played back on your TV if its video circuit has
  been replaced.
- A USB hard drive with a speed of 5,400rpm or above is recommended. However, RAID-type USB hard drives are not supported,
- USB memory sticks are not supported.
- The total recording capacity may vary depending on the amount of available hard drive space and the recording quality level.
- Schedule Recording requires at least 100MB of free space on the USB storage device. Recording
  will stop if the available storage space falls below 50MB while recording is in progress.
- If the available storage space falls below 500MB while both the Schedule Recording and Timeshift functions are in progress, only the recording will stop.
- The maximum recording time is 360 minutes.
- A video is played according to the TV settings.
- If the input signal is changed while recording is in progress, the screen will go blank until the change is made. In this case, recording will resume, but • will not be available.
- Device Performance Test must be performed on the USB storage device connected to the TV before a recording can be made. To perform the Device Performance Test, select Recorded TV in the On TV panel or USB Drive in the MULTIMEDIA panel and then select the recording device. When you make a recording on the Guide or Programme Info screen, if the USB storage device has failed in the Device Performance Test, the Format Device and Device Performance Test are performed again.
- When using the Record or Schedule Recording function, the actual recording may start a second or two later than the specified time.
- If the Schedule Recording function is operating while a recording is being made on an HDMI-CEC external device, the priority is given to the Schedule Recording.
- Connecting a recording device to the TV automatically deletes abnormally saved recording files.
- If the Off Timer or Auto Power Off has been set, the TV will overide these settings, continue to record, and turn off after the recording has ended.

# **Before the Using Timeshift Function**

- A USB hard drive with a speed of 5,400rpm or above is recommended. However, RAID-type USB hard drives are not supported.
- USB memory sticks or flash drives are not supported.
- The total recording capacity may vary depending on the amount of available hard drive space and the recording quality level.
- If the available storage space falls below 500MB while both the Schedule Recording and Timeshift functions are in progress, only the recording will stop.
- The maximum amount of time available for the Timeshift function is 90 minutes.
- The Timeshift function is not available for locked channels.
- A time-shifted video is played according to the TV settings.
- Before the Timeshift function can be used, the Device Performance Test must be performed on the USB storage device connected to the TV. To perform the Device Performance Test, select Recorded TV in the On TV panel or USB Drive in the MULTIMEDIA panel and then select the recording device.
- The Timeshift function may be terminated automatically once it reaches its maximum capacity.
- The Timeshift function requires at least 1,5GB of free space available on the USB storage device.
- Launching an app, switching to an Analogue channel, or changing the TV to a mode that does not support the Timeshift function automatically terminates the Timeshift function. The Timeshift operation will resume if the TV is changed back to a digital channel again.

# S-Recommendation Disclaimer



Availability depends on the specific model and area.

# S Recommendation with Voice Interaction

#### Recommendation given to common speech commands

Voice Interaction limited to the official language of the country of purchase. Performance may vary based on content availability, clarity and volume of your voice, and ambient noise levels. Strong regional accents may not be recognised.

Certain Samsung Smart TV features may not be available without express consent to the collection and use of personal information.

Certain features within S Recommendation require internet access and may not be available based on service provider, language, dialect and region,

Visit www.samsung.com for more information about service operator compatibility.

Actual remote control may differ from image shown.

#### **S** Recommendation

#### Content recommendations to fit your TV viewing preferences

Certain Samsung Smart TV features may not be available without express consent to the collection and use of personal information.

Certain features within S Recommendation require internet access and may not be available based on service provider, language, dialect and region.

Visit www,samsung.com for more information about service operator compatibility.

Actual remote control may differ from image shown.

# Read Before Using 3D Viewing Mode

Availability depends on the specific model.

#### 3D Precautions

#### Marning

- When viewing a 3D video under a fluorescent lamp (50 Hz 60 Hz) or 3-wavelength lamp, you
  may notice a small amount of screen flickering.
  - If this occurs, dim or turn off the light.
- Switching the input mode while watching a 3D movie may disable the 3D function on the TV.
  - As a result, the 3D glasses may not function and the movie may not be displayed properly.
- Ensure you are within the working distance of the glasses when you view a 3D video.
  - The images may not be viewable in 3D if you move outside of the working distance for 3 seconds.
  - If the 3D glasses are moved outside of their working distance, the signal from the TV will disconnect and the glasses' 3D function will turn off after several seconds. When this happens, the red LED will turn on for 3 seconds.
- If you lie on your side while watching TV with 3D active glasses, the picture may appear dark or
  may not be visible. The actual 3D effect may be experienced differently depending on the viewer.
  The 3D effect may not be visible if the visual ability of your left eye differs greatly from the visual
  ability of your right eye.
- If a part of the 3D glasses or lenses is defective or damaged, it cannot be repaired and the
  glasses should be replaced. If the glasses stop working within the warranty period, the glasses
  can be repaired or replaced for free. If the glasses have been damaged due to the fault of the
  customer or the warranty period has expired, a new pair of glasses will have to be purchased.
- The 3D glasses may not work properly due to interference from other 3D products or electronic
  devices that operate on the 2.4GHz frequency such as a microwave oven or Internet AP. If
  the 3D function malfunctions due to interference, please move all other electronic or wireless
  communication devices as far away from the glasses and the TV as possible.
- The 3D glasses may not work properly due to interference from other 3D products or electronic devices that operate on the 2.4GHz frequency such as a microwave oven or Internet AP. If the 3D function malfunctions due to interference, please move all other electronic or wireless communication devices as far away from the glasses and the TV as possible.
- The vividness of the image may appear degraded if you view 3D video in a place that is exposed to direct sunlight or illumination.
- The 3D glasses may malfunction if there is an electric field or metallic object such as a steel
  plate nearby. Keep the glasses as far away as possible from electric fields and metallic objects.
- With SSG-3570 model glasses, the glasses may power off if you remain stationary while viewing 3D video for an extended period of time.
- With SSG-3570 model glasses, if the 3D glasses do not function immediately after you put them on when the TV is in 3D mode, take them off and then put them back on.

#### **⚠** Caution

# IMPORTANT HEALTH AND SAFETY INFORMATION FOR 3D IMAGES, READ THE FOLLOWING CAUTIONS BEFORE YOU OR YOUR CHILD USE THE 3D FUNCTION.

- Adults should frequently check on children who are using the 3D function. If there are any
  complaints of tired eyes, headaches, dizziness, or nausea, stop the child from viewing the 3D TV
  and ensure that they rest.
- Do not use the 3D glasses for other purposes such as general wear, sunglasses, protective goggles, etc.
- Some viewers may experience discomfort such as dizziness, nausea, and headaches while viewing 3D TV. If you experience any of these symptoms, stop viewing the 3D TV, remove the 3D glasses, and rest for awhile.
- Watching 3D pictures for an extended period of time may cause eye strain. If you experience any
  eye strain, stop viewing the 3D TV, remove the 3D glasses, and rest for a while.
- Do not use the 3D function or 3D glasses while walking or moving around. Using the 3D function or 3D Active Glasses while moving around may result in injury from running into objects, tripping, and/or falling.
- Do not sleep with the 3D glasses on. You can damage or break the temples.
- The temples on your 3D glasses are not foldable. Forcing the temples to fold will damage the 3D glasses.
- With SSG-3570 model glasses, do not shake your 3D glasses repeatedly. Shaking the glasses will
  power them on and can cause the battery to discharge faster than it would normally.
- With SSG-5100GB model glasses, there is a danger of explosion if the battery is incorrectly replaced.
- With SSG-5100GB model glasses, make sure to replace the battery with the same type.

#### **△** Safety Precautions

The following safety instructions are to ensure your personal safety and prevent property damage. Please read the following to ensure the proper use of the product.

- Do not place the product in a location exposed to direct sunlight, heat, fire, or water, Exposure may result in a product malfunction or fire.
- Do not apply force to the lenses of the 3D glasses. Do not drop or bend the product. Applying force, dropping, or bending may result in a 3D glasses malfunction.
- Keep the components of the 3D glasses out of reach of children. Especially, ensure children do
  not swallow any of the components. If your child swallows a component, consult your doctor
  immediately.
- When cleaning the product, do not spray water or cleaner directly onto the surface of the product. Spraying water or cleaner directly onto the glasses may result in fire or electric shock, damage to the product's surface, or cause the indicator labels on the product's surface to come loose.
- Do not apply chemicals containing alcohol, solvent, or surfactant such as wax, benzene, thinner, pesticide, air freshener, lubricant, or cleaner to the product. These chemicals may cause the product's exterior to be discolored or cracked, or labels or instructions to be removed. Use only a soft cloth such as superfine fibers or cotton flannels for cleaning the product as the surface or the lenses easily crack. Because the product can be easily scratched with foreign substances, make sure to dust off the cloth before using.
- Do not disassemble, or attempt to repair or modify your 3D active glasses by yourself.
- Be careful not to let the temple ends of the 3D active glasses harm your eye.
- Do not sleep with the 3D glasses on. You can break the arms.
- Use your hands to put on or remove the 3D glasses.
- Use only the specified standard batteries. When replacing the battery, insert the battery so that
  its polarity (+, -) is correct. Failing to do so may damage the battery or result in fire, personal
  injury or environmental damage caused by liquid leaking from the battery. (applicable to the SSG5100 only).
- Keep the used battery out of the reach of children so that they do not accidently swallow the battery. If your child has swallowed the battery, consult your doctor immediately. (applicable to the SSG-5100 only).
- Swallowing the cylindrical (button type) battery can cause serious damage to your internal organs. If this happens, contact a doctor immediately.

# Supported Resolutions for each 3D Mode

These specifications apply to the 16:9 display ratio only.

## **HDMI**

• 3D Mode: 👪 (L/R), 🚺 (T/B)

Resolution	Frequency (Hz)
1280 x 720p	50 / 59.94 / 60
1920 x 1080i	50 / 59.94 / 60
1920 x 1080p	23.98 / 24 / 25 / 29.97 / 30 / 50 / 59.94 / 60

#### Component

Resolution	Frequency (Hz)
1280 x 720p	50 / 59.94 / 60
1920 x 1080i	50 / 59.94 / 60
1920 x 1080p	23.98 / 24 / 25 / 29.97 / 30 / 50 / 59.94 / 60

# **Digital Channel**

Resolution	Frequency (Hz)
1280 x 720p	50 / 59.94 / 60
1920 x 1080i	50 / 59.94 / 60
1920 x 1080p	25

### Videos/Photos

Refer to the "Photo, Video, and Music File Limitations" section.

## Computer via HDMI Cable.

The optimal resolution for computers connected to the TV via an HDMI cable is  $1920 \times 1080$ . If you select another resolution, the TV may not display 3D images correctly and may not be able to display the computer video in full screen.

## Read Before Using Voice, Motion, or Face Recognition

Availability depends on the specific model and area.

### Precautions for Voice, Motion and Face Recognition

#### **Face Recognition**

- This product saves thumbnail images of users' faces for use during the Face Login.
- Logging into the Smart Hub via Face Recognition may be less secure than logging in using an ID and password.

#### Using the TV Camera

- Under some circumstances and under certain legal conditions, the use/misuse of the TV camera
  may result in illegal actions. There may be obligations under local privacy laws regarding the
  protection of individuals concerning personal data and on the free movement of such data, and
  possibly other laws including criminal laws regulating camera surveillance both in the workplace
  and elsewhere.
- By using the TV camera, users agree that it will not be used (i) in locations where cameras are generally prohibited (such as bathrooms, locker rooms or changing rooms), (ii) in any manner that will result in an invasion of a person's privacy, or (iii) in violation of any applicable laws, regulations or statutes.

#### **Motion Control**

- Motion Control uses the camera. For Motion Control to work, you must be within the camera's
  recognition range. The camera's recognition range varies depending on the ambient light level
  and other factors.
- Run the Motion Control Environment Test before using Motion Control to determine the camera's recognition range.
- You may experience physical fatigue when using Motion Control for extended periods

#### **Voice Control**

- Voice Control does not support signs such as the minus (-) symbol and special characters, neither a word nor sentence that contains numbers or signs. It may be not available for certain languages or dialects, or in some areas. It also differs in performance depending on the selected language, pronunciation, voice sound level, and ambient noise.
- Voice Text Input requires that you agree to any third-party app's voice privacy policy and that you provide Samsung with the your MAC address and other private information.
- Voice Text Input lets you enter text using voice commands instead of a mouse, keyboard, or remote control. This feature is particularly useful for searching, browsing the web, and using applications.
- You must agree to the following privacy notices before using Interactive Voice Control:
  - Voice Recognition Privacy Notice and Nuance Privacy Notice

### Requirements for Using Voice, Motion, or Face Recognition

#### Requirements for Using Voice Recognition

• The voice recognition rate varies depending on the volume/tone, pronunciation, and ambient sound environment (TV sound and ambient noise).

#### Requirements for Using Motion Recognition

- Before using motion recognition, make sure the TV's camera has been turned on.
- You should be located between 1.5m and 3.5m from the camera. The actual recognition range may vary depending on the camera angle and other factors.
- Motion Control relies on the TV camera and therefore will not function if the camera is pointed up
  or down. Adjust the camera's angle using the wheel on the back of the camera. Do not point the
  camera directly at the sun or any other light source or obstruct its view.
- For the camera to recognise movement, you have to stand out from the background.
- The appropriate ambient brightness is 50 to 500 lux. (100 Lux: Bathroom, 400 Lux: Living Room)
- Avoid direct sunlight when using Motion Control.
- Run the Motion Control Environment Test to assess the camera's recognition range before using Motion Control.

#### Requirements for using Face Recognition

- You should be located between 1.5m and 4.0m from the camera. The actual recognition range may vary depending on the camera angle and other factors.
- The appropriate ambient brightness is 50 to 500 lux. (100 Lux: Bathroom, 400 Lux: Living Room)
- Face Recognition can recognise up to 5 different users at a time.
- The TV may have difficulty recognising twins and people with similar faces as two different individuals,
- Note the following when using Face Recognition:
  - Do not cover your face with a hat, a pair of sunglasses, or your hair.
  - Your entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognising your face accurately.
  - Keep your expression as neutral as possible. In addition, keep your mouth closed and as neutral as possible.
  - When you log into your Samsung account, your facial expression must be the same as the facial expression you had when you registered. Facial expression you had during the registration process.

## Read Before Using SAMSUNG APPS

- Due to the product characteristics featured on the Samsung Smart Hub, as well as limitations in available content, certain features, applications, and services may not be available on all devices or in all territories. Some Smart Hub features may also require additional peripheral devices or membership fees. Visit http://www.samsung.com for more information on specific device information and content availability. Services and content availability are subject to change without prior notice.
- Samsung Electronics takes no legal responsibility whatsoever for any interruption of app services caused by the service provider for any reason,
- Application services may be provided in English only and available content may vary depending on the area.
- For more information about applications, visit the applicable service provider's website.
- An unstable Internet connection may cause delays or interruptions. In addition, applications may terminate automatically depending on the network environment. If this occurs, check your Internet connection and try again.
- Application services and updates may become unavailable.
- Application content is subject to change by the service provider without prior notice.
- Specific services may vary depending on the version of the application installed on the TV.
- An application's functionality may change in future versions of the application. If this occurs, run
  the application's tutorial or visit the service provider's website.
- Depending on the service provider's policies, certain applications may not support multitasking.

### **Web Browser Restrictions**

- Select Web Browser. The browsing screen may differ from the one on your computer.
- The web browser is not compatible with Java applications.
- You cannot download files. If you attempt to download a file, you will receive an error message instead.
- The web browser may not be able to access certain websites.
- · Playing Flash videos may be restricted.
- E-commerce for online purchases is not supported.
- With websites that have scrollable windows, scrolling a window can result in corrupted characters.
- ActiveX is not supported.
- Certain options are not accessible in Link Browsing mode. (Switch to Pointer Browsing to activate those options.)
- Only a limited number of fonts are supported. Certain symbols and characters may not be displayed properly.
- The response to remote commands and the resulting on-screen display may be delayed while a
  webpage is loading.
- Loading a webpage may be delayed or suspended completely with certain operating systems.
- The copy and paste operations are not supported.
- When composing an email or a simple message, certain functions such as the font size and colour selection may not be available.
- There is a limit to the number of bookmarks and the size of the log file that can be saved,
- The number of windows that can be opened concurrently varies depending on the search conditions and the TV model.

- The web browsing speed will vary depending on the network environment.
- Playing embedded video automatically disables PIP. Video playback may not commence after PIP is disabled. In this case, you will have to reload the page.
- The web browser supports ,mp3 audio files only.
- The web browser supports a specific file format for importing and exporting bookmarks.
   (Compatible Format: Netscape-bookmark file- 1)
- The folder tree information is not included when importing and exporting bookmarks.
- Exporting bookmarks to a USB device connected to the TV saves the bookmarks under a folder named "Samsung SmartTV Bookmark".
- If the Clock (System > Time > Clock) has not been set, the browsing history will not be saved.
- The browsing history is saved from latest to oldest, with the oldest entries being overwritten first.
- Depending on the types of video/audio codecs supported, it might not be possible to play certain video and audio files while playing Flash content.
- Video sources from PC-optimised streaming service providers may not play properly on our proprietary web browser.
- Using the on-screen QWERTY keyboard automatically disables PIP. (Except when entering a URL.)

## Photo, Video, and Music File Limitations

- The TV supports MSC (Mass Storage Class) USB devices only, MSC is a class designation for
  mass USB Drives. Types of MSC devices include external hard drives, flash card readers, and
  digital cameras. (USB hubs are not supported.) These kinds of devices must be connected directly
  to the TV's USB port. The TV may not be able to recognise the USB device or read the files on
  the device if it is connected to the TV via a USB extension cable. Do not disconnect the USB
  device while transferring files.
- When connecting an external hard drive, use the USB (HDD) port. We recommend that you use an external hard drive with its own power adapter.
- Certain digital cameras and audio devices may not be compatible with the TV.
- If there are multiple USB devices connected to the TV, the TV might not be able to recognise some or all the devices. USB devices that use high-power input should be connect the USB [5V, 1A] port.
- The TV supports the FAT, exFAT, and NTFS file systems.
- After sorting files in the Folder view mode, the TV can display up to 1000 files per folder. If the USB device contains more than 8,000 files and folders, however, some files and folders might not be accessible.
- The PTP (pier to pier) connection mode is available only for digital cameras. If you connect a smartphone or tablet to the TV using PTP mode, the TV will not recognise it.

### **Storage Device File Transfers**

Storage device containing media content	Target device
USB Device	DLNA Device, SugarSync, Dropbox, SkyDrive, Mobile Device
Camera	DLNA Device
DLNA Device	USB Device
SugarSync, Dropbox, SkyDrive	USB Device
Mobile Device	USB Device

## **Supported External Subtitles**

Certain files, depending on how they were encoded, may not play on the TV.

Name	Format
MPEG-4 Timed text	.ttxt
SAMI	.smi
SubRip	.srt
SubViewer	.sub
Micro DVD	.sub or .txt
SubStation Alpha	.ssa
Advanced SubStation Alpha	.ass
Powerdivx	.psb
SMPTE-TT Text	,xml

## Supported Internal Subtitles



Certain files, depending on how they were encoded, may not play on the TV.

Name	Container
Xsub	AVI
SubStation Alpha	MKV
Advanced SubStation Alpha	MKV
SubRip	MKV
VobSub	MKV
MPEG-4 Timed text	MP4
TTML in smooth streaming	MP4
SMPTE-TT TEXT	MP4
SMPTE-TT PNG	MP4

## **Supported Image Formats and Resolutions**

Certain files, depending on how they were encoded, may not play on the TV.

File Extension	Format	Resolution
*.jpg *.jpeg	JPEG	15360x8640
*.png	PNG	4096x4096
*.bmp	ВМР	4096x4096
*.mpo	MPO	15360x8640

## **Supported Music Formats and Codecs**

Certain files, depending on how they were encoded, may not play on the TV.

File Extension	Format	Codec	Note
*.mp3	MPEG	MPEG1 Audio Layer 3	
*.m4a *.mpa *.aac	MPEG4	AAC	
*.flac	FLAC	FLAC	Supports up to 2 channels
*.ogg	OGG	Vorbis	Supports up to 2 channels
*.wma	WMA	WMA	Supports up to 10 Pro 5.1 channels WMA lossless audio is not supported Supports up to the M2 profile
*.wav	wav	wav	
*.mid *.midi	midi	midi	Supports type 0 and type 1 "Seek" not supported Available only on USB storage devices
*.ape	ape	ape	NonSmart not supported
*.aif *.aiff	AIFF	AIFF	
*.m4a	ALAC	ALAC	

## **Supported Video Codecs**

 $\ensuremath{\ell}$  Certain files, depending on how they were encoded, may not play on the TV.

File Format	Container	Video Codecs	Resolution	Frame Rate (fps)	Bitrate (Mbps)	Audio Codec
		Motion JPEG	1280x720	30		
		HEVC(H.265)				
*.avi *.mkv		H.264 BP / MP / HP				
*.asf *.wmv	AVI MKV	DivX 3.11 / 4 / 5 / 6				Dolby Digital LPCM
*.mp4 *.mov	ASF MP4	MPEG4 SP/ASP				ADPCM(IMA, MS) AAC
*.3gp *.vro	3GP MOV	Window Media Video v9(VC1)	1920x1080	FHD: MAX 30 HD: MAX 60	30	HE-AAC WMA
*.mpg *.mpeg	FLV VRO	MVC			Dolby Digital Plus MPEG(MP3)	
*.ts *.tp	VOB PS	MPEG2				DTS(Core, LBR) G.711(A-Law,  µ-Law)
*.trp *.mov	TS SVAF	MPEG1				μ. Ξα,
*.flv *.vob		Microsoft MPEG-4 v1, v2, v3				
*.svi *.m2ts		H.263 Sorrenson	1280×720	MAX 30		
*.mts *.divx		Window Media Video v7(WMV1) ,v8(WMV2)				
		VP6				
*.webm	WebM	VP8	1920×1080	6~30	20	Vorbis

#### Other Restrictions

- Codecs may not function properly if there is a problem with the content data,
- Video content does not play or does not play correctly if there is an error in the content or container.
- Sound or video may not work if they have standard bit rates/frame rates above the TV's compatibility ratings.
- If the Index Table is wrong, the Seek (Jump) function does not work.
- When playing video over a network connection, the video may not play smoothly because of data transmission speeds.
- Some USB/digital camera devices may not be compatible with the player,
- HEVC codec is only available in MKV /MP4 / TS containers.

#### Video Decoders

- Supports up to H.264, Level 4.1 (does not support FMO/ASO/RS)
- VC1 AP L4 is not supported.
- All video codecs excluding WMV v7, v8, MSMPEG4 v3, MVC, and VP6:

Below 1280x720: 60 frame max

Above 1280x720: 30 frame max

- GMC 2 or above is not supported.
- SVAF supports Top/Bottom, Side by side, and Left/Right view sequence types (2 ES).
- This can only support the BD MVC specifications.

#### **Audio Decoders**

- WMA is supported up to 10 Pro 5.1 channels. Supports up to the M2 profile.
- This does not support WMA 10Pro M3.
- WMA lossless audio is not supported.
- QCELP and AMR NB/WB are not supported.
- Vorbis is supported for up to 2 channels.
- Dolby Digital Plus is supported for up to 5.1 channels.
- The DTS LBR codec is only available for MKV / MP4 /TS containers.

## Restrictions

### Restrictions to PIP (Picture-in-Picture)

- PIP cannot be used while Smart Hub or 3D is active.
- Turning off the TV automatically disables PIP.
- Playing a game or using the karaoke feature on the main screen can result in lower PIP picture quality.
- To watch TV as a picture-in-picture, the main screen's source must be set to Component or HDMI. The PIP window supports TV signals only.
  - Availability depends on the specific model and area.

## Read After Installing the TV

### Picture Sizes and Input Signals

Picture Size	Input Signal
Auto Wide	ATV, EXT, AV, DTV (576i/p, 720p), DTV (1080i, 1080p)
16:9	ATV, EXT, AV, DTV (576i/p, 720p, 1080i, 1080p), Component (480i/p, 576i/p, 720p, 1080i, 1080p), HDMI (480i/p, 576i/p, 720p, 1080i, 1080p)
Wide Zoom, Zoom	ATV, EXT, AV, DTV (576i/p, 720p, 1080i, 1080p), Component (480i/p, 576i/p, 720p, 1080i, 1080p), HDMI (480i/p, 576i/p, 720p, 1080i, 1080p)
4:3	ATV, EXT, AV, DTV (576i/p, 720p, 1080i, 1080p), Component (480i/p, 576i/p, 720p, 1080i, 1080p), HDMI (480i/p, 576i/p, 720p, 1080i, 1080p)
Smart View 1	HDMI (480i/p, 576i/p, 720p, 1080i, 1080p)
Smart View 2	DTV (576i/p, 720p, 1080i, 1080p), HDMI (480i/p, 576i/p, 720p, 1080i, 1080p)
Screen Fit	DTV (1080i, 1080p), Component (1080i, 1080p), HDMI (720p, 1080i, 1080p)

The **Picture Size** setting is applied to the current source. The applied **Picture Size** will remain in effect whenever you select that source unless you change it.

### Installing an Anti-Theft Kensington Lock

A Kensington Lock is a physical device that can be used to protect the TV against theft. Look for the Kensington slot on the back of the TV. The slot has a  $\square$  icon next to it. To use the lock, wrap the lock cable around an object that is too heavy to carry and then thread it through the TV's Kensington slot. The lock is sold separately.

The method of using a Kensington Lock may differ for each TV model. Refer to the Kensington Lock manual for more information.

### Read Before Setting Up a Wireless Internet Connection

#### **Wireless Internet Precautions**

- This TV supports the IEEE 802.11a/b/g /n communication protocols. Samsung recommends using IEEE 802.11n. Video files stored on a device connected to the TV via DLNA may not play back smoothly.
- To use wireless Internet, the TV must be connected to a wireless router or modem. If the wireless router supports DHCP, the TV can use a DHCP or static IP address to connect to the wireless network.
- Select a channel that is not currently in use for the wireless router. If the channel set for the
  wireless router is currently being used by another device, the result is usually interference and/or
  a communications failure.
- Most wireless networks have an optional security system. To enable a wireless network's security system, you need to create a security key using characters and numbers. This security key is then needed to connect to a security-enabled AP.

#### **Wireless Security Protocols**

The TV only supports the following wireless network security protocols and is unable to connect to non-certified wireless routers:

Authentication Modes: WEP, WPAPSK, WPA2PSK

Encryption Types: WEP, TKIP, AES

In compliance with the newest Wi-Fi certification specifications, Samsung TVs do not support WEP or TKIP security encryption in networks running in the 802.11n mode.

If the wireless router supports WPS (Wi-Fi Protected Setup), you can connect the TV to your network using PBC (Push Button Configuration) or a PIN (Personal Identification Number). WPS automatically configures the SSID and WPA key settings.

## **Computer Connection Precautions**

When you connect your TV to a computer, set the computer's video card to one of the standard resolutions listed in the tables below or on the next page. The TV will automatically adjust to the resolution you choose. Note that the optimal and recommended resolution is 1920 x1080.

Choosing a resolution not included in the tables can result in a blank screen or just the power indicator turning on. Refer to the user manual of your graphics card for compatible resolutions.

### **IBM**

Resolution (DotsxLines)	Display Format	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Clock Frequency (MHz)	Polarity (Horizontal/ Vertical)
720x400	70Hz	31.469	70.087	28.322	-/+

### **MAC**

Resolution (DotsxLines)	Display Format	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Clock Frequency (MHz)	Polarity (Horizontal/ Vertical)
640x480	67Hz	35.000	66.667	30.240	-/-
832x624	75Hz	49.726	74.551	57.284	-/-
1152x870	75Hz	68.681	75.062	100.000	-/-

## **VESA DMT**

Resolution (DotsxLines)	Display Format	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Clock Frequency (MHz)	Polarity (Horizontal/ Vertical)
640x480	60Hz	31.469	59.940	25.175	-/-
640x480	72Hz	37.861	72.809	31.500	-/-
640x480	75Hz	37.500	75.000	31.500	-/-
800x600	60Hz	37.879	60.317	40.000	+/+
800x600	72Hz	48.077	72.188	50.000	+/+
800x600	75Hz	46.875	75.000	49.500	+/+
1024x768	60Hz	48.363	60.004	65.000	-/-
1024x768	70Hz	56.476	70.069	75.000	-/-
1024x768	75Hz	60.023	75.029	78.750	+/+
1152x864	75Hz	67.500	75.000	108.000	+/+
1280x720	60Hz	45.000	60.000	74.250	+/+
1280x800	60Hz	49.702	59.810	83.500	-/+
1280x1024	60Hz	63.981	60.020	108.000	+/+
1280x1024	75Hz	79.976	75.025	135.000	+/+
1366x768	60Hz	47.712	59.790	85.500	+/+
1440x900	60Hz	55.935	59.887	106.500	-/+
1600x900RB	60Hz	60.000	60.000	108.000	+/+
1680x1050	60Hz	65.290	59.954	146.250	-/+
1920x1080	60Hz	67.500	60.000	148.500	+/+

### LED 4500 series

After connecting a computer to the TV, set the screen resolution for the TV on the computer. The optimal resolution is  $1366 \times 768 \otimes 60$  Hz. If it is set to any other than in the table below, the TV may display nothing. Set the resolution properly, referring to the user guide of the computer or its graphic card.

### **IBM**

Resolution	Standard frequency	Horizontal Frequency (KHz)	Vertical Frequenzcy (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H / V)
720x400	70Hz	31,469	70.087	28.322	-/+

### **MAC**

Resolution	Standard frequency	Horizontal Frequency (KHz)	Vertical Frequenzcy (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H / V)
640x480	67Hz	35.000	66.667	30.240	-/-
832x624	75Hz	49.726	74.551	57.284	-/-

### **VESA DMT**

Resolution	Standard frequency	Horizontal Frequency (KHz)	Vertical Frequenzcy (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H / V)
640x480	60Hz	31,469	59.940	25.175	-/-
640x480	72Hz	37.861	72.809	31,500	-/-
640x480	75Hz	37.500	75.000	31,500	-/-
800x600	60Hz	37.879	60.317	40.000	+/+
800x600	72Hz	48.077	72.188	50.000	+/+
800x600	75Hz	46.875	75.000	49.500	+/+
1024x768	60Hz	48.363	60.004	65.000	-/-
1024x768	70Hz	56.476	70.069	75.000	-/-
1024x768	75Hz	60.023	75.029	78.750	+/+
1280x720	60Hz	45.000	60.000	74.250	+/+
1366x768	60Hz	47.712	59.790	85.500	+/+

# **Supported Video Resolutions**

Resolution (DotsxLines)	Display Format	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Clock Frequency (MHz)	Polarity (Horizontal/ Vertical)
720(1440)x480i	60Hz	15.734	59.940	27.000	-/-
720(1440)x576i	50Hz	15.625	50.000	27.000	-/-
720x480	60Hz	31.469	59.940	27.000	-/-
720x576	50Hz	31,250	50.000	27.000	-/-
1280x720	60Hz	45.000	60.000	74.250	+/+
1280x720	50Hz	37.500	50.000	74.250	+/+
1920x1080i	60Hz	33.750	60.000	74.250	+/+
1920x1080i	50Hz	28.125	50.000	74.250	+/+
1920x1080	60Hz	67.500	60.000	148.500	+/+
1920x1080	50Hz	56.250	50.000	148.500	+/+
1920x1080	30Hz	33.750	30.000	74.250	+/+
1920x1080	25Hz	28.125	25.000	74.250	+/+
1920x1080	24Hz	27.000	24.000	74.250	+/+

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DivX Certified® to play DivX® video up to HD 1080p, including premium content.

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## Glossary

#### 480i/480p/720p/1080i/1080p

Generally refers to the number of effective scanning lines that determines the screen's resolution. There are two scanning methods: interlaced and progressive.

#### Scanning

Sequential projection of pixels to form images. The higher the number of pixels, the clearer and more vivid the images.

#### - Progressive

A sequential scanning method that scans every line, one after another,

#### Interlaced

A staggered scanning method that scans every other line until the end of the screen and then fills in the remaining lines.

Example) If the number of horizontal scan lines is 480i

Scans 240 lines from start to finish and then scans the remaining 240 lines for a total of 480 lines

\* General differences between 480i and 480p are as follows:

	480i	480p	
Horizontal Frequency	15,75Khz	31,5Khz	
FPS	30	60	
Lines on Screen	480	480	

#### • ARC (Audio Return Channel)

Generally, a separate RCA or optical cable needs to be connected in order for the TV audio to be heard through an AV receiver. With receivers that support ARC, however, digital audio can be transmitted via the HDMI cable only.

#### DVI (Digital Visual Interface)

Connecting the TV's DVI connector to a computer's DVI connector via an HDMI-to-DVI cable lets you use the TV as a computer monitor. However, HDMI-to-DVI cables deliver video signals only. You must connect a set of speakers to the computer using a separate cable to hear the computer's audio.

#### HDMI (High Definition Multimedia Interface)

HDMI is a method of transmitting both video and audio signals via a single cable,

#### Dynamic versus Static IP Addresses

If the network requires a dynamic IP address, use an ADSL modem or router that supports the Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway and DNS values the TV needs to access the Internet, so they do not have to be entered manually. Most home networks use a dynamic IP address.

If the network requires a static IP address, enter the IP address, subnet mask, gateway, and DNS values manually when setting up the network connection. To get the IP address, subnet mask, gateway and DNS values, contact your Internet Service Provider (ISP).

If the network requires a static IP address, use an ADSL modem that supports DHCP. ADSL modems that support DHCP also allow static IP addresses.

#### Ethernet

Ethernet is a LAN (Local Area Network) that uses coaxial cables standardised by the IEEE.

#### Component Connection

Component connections are mostly used for game consoles and transmit the video signal by splitting it into a luminance signal (Y) and two colour signals (Pb and Pr). The connector is marked as [Component IN]\_(Pr, Pb, Y) on the back of the TV. On some devices, it is sometimes marked as Cr, Cb, Y. Cb and Cr are the digital conversions of the Pb and Pr signals.

The connectors are normally colour-coded red (R), blue (B), and green (G) and offer the best picture quality possible for an analogue connection.